

of the mountain 30 ft. wide, one halfway down 15 ft. wide, one nearly down 20 ft. wide, and one near the river 10 to 15 ft. wide. **Dev:** Short crosscut adit on 15-ft. vein. **Assays:** Reported \$0.28 to \$176.00 Au. **Ref:** 158.

### Sturman and Herringa (1)

**Loc:** Secs. 8 and 17, (40-3E), near Lynden. **Elev:** 100 ft. **Prop:** Farm land. **Owner:** Thomas Herringa and Mr. Sturman. **Ore:** Iron. **Ore min:** Limonite (bog iron). **Deposit:** Typical of several bog deposits in the vicinity of Bellingham, Ferndale, and Lynden. The Sturman deposit covers an acre or so to an av. depth of 2 ft. The Herringa deposit may cover 5 acres and varies in thickness from 0 to 2 or 3 ft. **Assays:** 39.67% Fe, 19.43% SiO<sub>2</sub>, 0.153% P, 0.013% S. **Ref:** 48, p. 22. 142, pp. 103-104. 158. 179, pp. 42-43.

### Sumas Mountain (Hematite) (2)

**Loc:** Sec. 2, (39-4E) and sec. 35, (40-4E), on W. slope of Sumas Mtn. **Elev:** 700 to 1,600 ft. **Access:** ½ mi. by trail. **Prop:** 7 claims known as the Hematite group held under prospecting permits from the State. **Owner:** Yamate Trading Co., Ltd., San Francisco, Calif., acquired 20-yr. lease in 1952. Hematite Iron & Gold Mines Development Co., John Westin, et al. (1934). **Ore:** Iron. **Ore min:** Limonite, scattered grains of magnetite. **Deposit:** Ferruginous mudstone or low-grade limonite occurs as a blanket on altered peridotite and underlies a basal conglomerate of the Chuckanut formation. Exposures as much as 20 ft. thick extend 1,500 ft. or so up the W. side of Sumas Mtn. **Dev:** 60-ft. adit, open cuts. **Assays:** A picked sample gave on analysis 37.21% Fe, 20.83% SiO<sub>2</sub>, 0.20% P, 0.008% S. **Ref:** 48, pp. 22-23. 58, p. 29. 142, pp. 105-107. 158. 179, pp. 53-55.

## LEAD

**Properties**—Lead is a bluish-gray metal, which on fresh surfaces has a bright luster that soon tarnishes on exposure to air. It is one of the heaviest metals, is very soft and highly malleable, but has only slight tenacity and low ductility. It is a poor conductor of electricity. It is very plastic, tends to flow under very light loads, and may be extruded easily to form wire or tubes. Lead as an unusual and useful combination of properties in having a low melting point but high boiling point. It is chemically inert to common corrosive conditions, and is attacked upon very slowly by dilute acids. It forms two series of chemical compounds, in which it shows valences of 2 and 4. Other properties are given in the table on page 12.

**Uses**—Lead was probably one of the first metals to be won from its ores by smelting. In 1950 about 52 percent of all lead consumed went into three products—batteries (32 percent), cable coverings (11 percent), and tetraethyl lead for high-octane gasoline (9 percent). About 9 percent of the total consumption went into paint pigments. In the two last mentioned uses the lead is in the form of chemical compounds; other important uses of lead compounds are in dyes, insecticides, ceramic glazes, medicine, matches, oil refining, and gas production. Other uses of lead in the metallic form are for ammunition, calking metal, casting metal, sheet metal, sheet lead, lead plating, collapsible tubes, foil, weights, ballast, shot, and pipe and containers for corrosive liquids. Lead is a constituent of many alloys, antimony being the most common alloying metal, but common also are tin, arsenic, and calcium. Some of these alloys are used as solder, type metal, bearing metal, pewter, andterne metal.

**Production**—In 1951 there were 11 lead smelters in the country, 1 each in California, Colorado, Idaho, Illinois, Kansas, Missouri, Montana, New Jersey, and Texas, and 1 in Utah. An important factor in the lead market is secondary lead, the recovery of which has exceeded mine production of new lead each year for many years.

The first recorded production of lead in Washington was in 1898, and some lead has been mined each year since then, although the amount has varied greatly from year to year. The record was in 1952, when 11,744 short tons valued at \$3,781,568 was produced. The previous record was in 1950, with 10,334 tons, which ranked Wash-

ington ninth among the states in lead output, and amounted to 2.4 percent of the total United States production for that year. Lead accounted for 26 percent of the value of metallic ore produced in Washington in 1952. Total output from 1898 through 1952 was 124,766 short tons, valued at \$25,617,254. Some lead has been mined in each of 10 different counties, but of recent years most has been from the Metaline district in Pend Oreille County and the Bossburg and Northport districts in Stevens County. In 1950 these 3 districts produced respectively 7,445 tons, 2,640 tons, and 237 tons of lead and ranked 10th, 20th, and 41st among the lead-producing districts in the United States. The mine of the Pend Oreille Mines & Metals Co. was the leading lead producer in the state in 1952.

**Prices**—The price of lead has very closely paralleled that of zinc for at least the past 60 years, and the prices of the two metals have been close to the same figure at any given time. During the period 1897 through 1950, the yearly average prices of the two metals have been within 2½ cents of each other each year except for the years 1915, 1916, 1947, 1948, and 1949. The spread was greatest at 8.5 cents in 1915, and the average spread for the years 1947 to 1949 was 3.88 cents. During the 56 years preceding 1953 the lowest price reached was 3.18 cents per pound in 1932 and the highest was 21.5 cents in late 1948. From 1900 until World War I, lead prices averaged between 4 and 6 cents per pound. The yearly average price advanced to 8.71 cents in 1917, but by 1921 had fallen to 4.55 cents. It then rose to 9.02 cents by 1925, after which began a continued drop which ended at the low of 3.18 cents in 1932. The price rose to 6.01 cents by 1937, dropped a little in 1938, then rose again to 6.5 cents by 1942, where it was maintained by government regulation through 1945. When the ceiling price restriction was removed the yearly average price rose rapidly to 18.04 cents by 1948, and late in that year the all-time high quotation of 21.5 cents was reached. The following year the price was dropping, and the average for 1950 was 13.3 cents per pound. The 1951 average was back up to 17.3 cents, but by April 1953 the price had dropped back to 12.5 cents. By October 1954 the price was back to 15 cents, where it remained through June 1955.

**Ore minerals**—The principal ore of lead is the sulfide, galena,  $\text{PbS}$ , containing 86.6 percent lead. Two other fairly common ores of lead are the carbonate, cerussite,  $\text{PbCO}_3$ , containing 77.5 percent lead, and the sulfate, anglesite,  $\text{PbSO}_4$ , containing 68.3 percent lead. Galena is a primary mineral, but cerussite and anglesite are secondary, as are also the less common, yet well-known, pyromorphite,  $\text{Pb}_3\text{P}_2\text{O}_{12}\text{Cl}$ , and wulfenite,  $\text{PbMoO}_4$ , containing 76.4 and 56.4 percent lead, respectively. All these lead minerals have been found in Washington. The metal rarely occurs as the native element. In all, there are more than 150 minerals known in which lead is an essential constituent.

**Geology**—Lead minerals typically are associated with zinc and silver minerals, and they occur predominantly

in limestone and dolomite, generally as disseminated replacement deposits. Deposits of the less common vein type usually are in sedimentary or metamorphic rocks and are associated with intrusive igneous rocks, but most of the replacement deposits usually are of either (1) lead-zinc ores, with no copper, silver, or gold, in a gangue of calcite, dolomite, pyrite or marcasite, and sometimes barite or fluorite, or (2) lead-silver ores, with similar gangue minerals, sometimes containing small amounts of zinc and gold. The vein deposits of lead usually are more complex, mineralogically. The lead is associated with zinc, and the ore carries appreciable values in gold and silver. Chalcopyrite and pyrite are common in the ore, as are also minerals of antimony, arsenic, bismuth, and other copper and iron minerals.

#### OCCURRENCES

The maps showing the numbered lead occurrences are plates 12, 13, and 14, on pages 35, 37, and 39 in volume 2.

#### CHELAN COUNTY

##### Belcher (1)

**Loc:** Sec. 36, (35-14E), adjoins Marlin prospect on the SE. **Access:** About 3 mi. of trail from Stehekin road. **Ore:** Lead, gold. **Ore min:** Galena, pyrite. **Ref:** 67, p. 38.

##### Big Chief

**Loc:** Stehekin dist. **Owner:** Campbell Hill Co. (1901). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** Vein 3 ft. wide. **Ref:** 13, p. 143. 67, p. 38.

##### Billy Jack (18)

**Loc:** SE¼ sec. 30, (35-16E), on SW. side of N. Fk. of Bridge Cr. near its head. **Access:** About 12 mi. of trail from road up Stehekin R. **Owner:** E. O. Blankenship, Stehekin, Wash. (1940). **Ore:** Lead, zinc. **Ore min:** Pyrite, pyrrhotite, galena, sphalerite. **Dev:** 90 ft. of adit. **Ref:** 67, p. 38.

##### Black Warrior (6)

(see under copper)

##### Blewett

(see Peshastin under gold)

##### Cascade (24)

(see under gold)

##### Cascade Consolidated (7)

(see under silver)

##### Clagstone (19)

**Loc:** SW¼ sec. 30, (35-16E), on W. side of the N. Fk. of Bridge Cr. at its head. **Elev:** 5,200 ft. **Access:** About 12 mi. of trail from road at mouth of Bridge Cr. **Owner:** E. O. Blankenship and Guy Imas, Stehekin, Wash. (1940). **Ore:** Lead, silver, gold, zinc. **Ore min:** Arsenopyrite, pyrite, galena, sphalerite. **Deposit:** Narrow quartz veins cutting gneiss. **Dev:** 3 short adits and an open cut. **Ref:** 67, p. 39.

##### Daisy Dean (36)

(see under gold)

##### Davenport (8)

(see under copper)

##### Defender (21)

(see under copper)

##### Doubtful (9)

**Loc:** Sec. 31, (35-15E), S. of the Quien Sabe prospect and N. of the Falls prospect, Stehekin dist. **Ore:** Lead, silver, copper, gold. **Ore min:** Galena, chalcopyrite, pyrite, sphalerite, arsenopyrite. **Gangue:** Quartz. **Deposit:** A 16- to 20-in. vein in which is a 4-in. zone of sulfide minerals. Country rock is gneiss. **Dev:** 2 adits, 30 and 100 ft. long. **Assays:** 87.5 to 100 oz. Ag, 54% to 62% Pb, tr. Au. **Ref:** 13, p. 142. 63, p. 83. 67, p. 40. 158.

##### Ellen

(see Van Epps under antimony)

##### Falls (10)

**Loc:** Sec. 31, (35-15E), N. of the Rouse prospect. **Access:** About 2 mi. of trail from Stehekin road. **Ore:** Lead, silver, gold, copper. **Ore min:** Galena, chalcopyrite, pyrite. **Gangue:** Quartz. **Deposit:** Vein 2 ft. wide. **Dev:** Open cut. **Ref:** 67, p. 40.

##### Franklin (11)

**Loc:** Sec. 30, (35-15E), N. of Quien Sabe prospect, Stehekin dist. **Owner:** Harry Frank, Tacoma, and Messrs. Rouse and Rouse, Sedro Woolley, Wash. (1902). **Ore:** Lead, silver. **Dev:** Small amount. **Assays:** 89 to 100 oz. Ag, 42% to 54% Pb, tr. Au. **Ref:** 13, p. 143. 67, p. 40.

##### Galena (Tiger, Kingman) (12)

**Loc:** Sec. 29, (35-15E), adjacent to Quien Sabe claim, Horseshoe Basin dist. **Access:** Road from Stehekin and short trail. **Prop:** 2 claims. **Owner:** Horseshoe Basin Mining & Development Co. (1949). Kenneth and Keith Kingman, Chelan, Wash., and E. W. Davis, Los Angeles, Calif. (1948). **Ore:** Lead, silver, zinc, gold, copper. **Ore min:** Galena, sphalerite, pyrite. **Deposit:** Fracture zone in granodiorite, with 250 ft. exposed length, containing a sulfide ore lens 100 ft. long and av. 6 in. thick. **Dev:** Open cut 7 ft. deep. **Assays:** One sample showed 1.76% Pb, 8.55% Zn, 0.21% Cu, 0.005 oz. Au, 1.51 oz. Ag. **Prod:** 4 tons mined but not shipped (1949). **Ref:** 13, p. 143. 67, p. 40. 157.

##### Great Republic

**Loc:** Stehekin dist. **Owner:** Campbell Hill Co. (1901). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** Vein 3 ft. wide. **Ref:** 13, p. 143. 67, p. 40.

##### Holden (30)

(see under copper)

##### Horseshoe Basin (13)

**Loc:** N½ sec. 29, (35-15E) and NE¼ sec. 32, (35-15E), Horseshoe Basin area. **Elev:** 6,600 ft. **Access:** Road and trail

from Stehekin at head of Lk. Chelan. **Prop:** 22 unpatented claims, 3 millsites. **Owner:** Horseshoe Basin Mining & Development Co., Bremerton, Wash. (1946—). **Ore:** Lead, zinc, copper, silver, gold. **Ore min:** Galena, sphalerite, chalcopyrite. **Deposit:** A persistent shear or fracture zone in granodiorite can be traced at least 1,000 ft. and possibly 5,000 ft. The exposed ore shoot is 330 ft. long and av. 3 ft. wide and is composed of quartz-sulfide vein and silicified wall rock. Very little mineralization in the fissure where exposed in the drift 375 ft. below the outcrop. **Dev:** 1,000-ft. crosscut adit, with about 1,000 ft. of drifts. **Improv:** Camp buildings, 7,000-ft. tram (1952). **Assays:** Samples from av. width of 2.9 ft. showed 4.7% Pb, 4.8% Zn, 9.8 oz. Ag, 0.062 oz. Au, 0.35% Cu, 1.78% As. **Ref:** 133, p. 35. 157. 158.

### Howe Sound

(see Holden under copper)

### Humbug (35)

**Loc:** T. 23 N., R. 15 E., in Solomon Cr. Gulch near the Silver Fiend prospect, Leavenworth dist. **Prop:** 1 claim. **Owner:** James Grieve, K. W. Dunlap, and August Sasse (1897). **Ore:** Lead, silver, gold, copper. **Ore min:** Galena, tetrahedrite. **Gangue:** Quartz. **Deposit:** Wide vein. **Ref:** 67, p. 28.

### Indiana

**Loc:** Stehekin dist. **Owner:** Campbell Hill Co. (1901). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** Vein 2½ ft. wide. **Ref:** 13, p. 143. 67, p. 41.

### Irene

(see Holden under copper)

### Jefferson and Tennessee

**Loc:** On Bridge Cr., Stehekin dist. **Prop:** 2 claims. **Owner:** M. Bushman and W. I. Lyle (1897). **Ore:** Lead. **Ore min:** Galena. **Ref:** 63, p. 84. 67, p. 41.

### Keefer Brothers

(see under molybdenum)

### King Solomon

(see Van Epps under antimony)

### Kingman

(see Galena)

### La Rica

(see Peshastin under gold)

### Last Chance

(see under gold)

### Logan (2)

**Loc:** N½ sec. 26, (35-14E), 600 ft. S. of Park Cr. Pass. **Access:** Trail from road up Stehekin R. **Ore:** Lead, zinc, copper, silver, gold. **Ore min:** Pyrrhotite, galena, sphalerite, pyrite, chalcopyrite. **Deposit:** Ore minerals in siliceous gangue along a slip zone in gneiss. **Dev:** A shaft and 4 adits, 25, 75, 150, 190 ft. long. **Ref:** 67, p. 41. 158.

### Marlin (3)

(see under copper)

### Maryland

**Loc:** Stehekin dist. **Owner:** Campbell Hill Co. (1901). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** Vein 4 ft. wide. **Ref:** 13, p. 143. 67, p. 42.

### Michigan

**Loc:** Stehekin dist. **Owner:** Campbell Hill Co. (1901). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** Vein 2 ft. wide. **Ref:** 13, p. 143.

### Nebraska (23)

(see under copper)

### North Star (29)

**Loc:** Sec. 18, (31-16E), on summit near Lyman Lk. at head of Railroad Cr. **Access:** Trail from Holden. **Prop:** 8 claims. **Owner:** Cascade Range Mining Co. (1897). **Ore:** Silver, lead. **Deposit:** A 15- to 20-in. paystreak in granite. **Dev:** 2 adits, 25 and 35 ft. long. **Assays:** As high as 33% Pb and 140 oz. Ag. **Ref:** 63, p. 82. 67, p. 36.

### Ohio

**Loc:** Stehekin dist. **Owner:** Campbell Hill Co. (1902). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** Vein 3 ft. wide. **Ref:** 13, p. 143. 67, p. 42.

### Ombompo (4)

(see under gold)

### Orphan Boy (25)

(see under silver)

### Panama No. 2 (14)

**Loc:** In upper Horseshoe Basin. **Access:** Road from Stehekin and about 1½ mi. of trail. **Ore:** Lead, gold, silver, zinc. **Ore min:** Galena, pyrite, sphalerite. **Gangue:** Quartz, fault gouge. **Deposit:** Ore occurs as post-fault mineralization in fault gouge. **Dev:** Short adit and open cut. **Ref:** 67, p. 42.

### Peshastin (37)

(see under gold)

### Quien Sabe (15)

**Loc:** Near center sec. 31, (35-15E), on E. side of Doubtful Lk. Basin, Stehekin dist. **Prop:** 2 patented claims: Quien Sabe, Quien Sabe No. 2. **Owner:** M. M. Kingman and Albert Pershall (1897). **Ore:** Lead, silver, gold, copper. **Ore min:** Galena, arsenopyrite, chalcopyrite. **Gangue:** Quartz. **Deposit:** Said to be a 60-ft. vein. **Dev:** 250-ft. drift. **Assays:** Tr. to 0.1 oz. Au, 103 to 204 oz. Ag, 46% to 54% Pb. **Ref:** 12, p. 93. 13, p. 142. 63, p. 83. 67, p. 42. 104, 5/30/36, p. 26. 158.

### Red Mountain (31)

(see under copper)

### Roscoe Conkling

**Loc:** Stehekin dist. **Owner:** Campbell Hill Co. (1901). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** Vein 2 ft. wide. **Ref:** 13, p. 143. 67, p. 43.

### Rouse (16)

**Loc:** SW¼ sec. 31, (35-15E), on the small stream draining Doubtful Lk. **Access:** About 2 mi. of trail from the Stehekin road. **Prop:** 1 patented claim and millsite. **Owner:** Cascade Consolidated Mining & Smelting Co. (1910). **Ore:** Lead, gold, silver, copper. **Ore min:** Galena, chalcopyrite. **Deposit:** Quartz vein. **Ref:** 67, p. 43.

### Royal

(see Red Mountain under copper)

### Silver Fiend (33)

**Loc:** NW¼ sec. 10, (23-15E), in Solomon Cr. Gulch, Leavenworth dist. **Access:** 10 mi. of trail from mouth of Jack Cr. at end of Icicle Cr. road. **Prop:** 1 claim. **Owner:** James Grieve (1897). **Ore:** Lead, silver, gold, copper. **Ore min:** Galena, tetrahedrite. **Gangue:** Quartz. **Deposit:** Wide vein. **Dev:** 15-ft. adit. **Ref:** 67, p. 29.

### Silver Jack (20)

**Loc:** NW¼ sec. 30, (35-16E), at head of N. Fk. of Bridge Cr. **Access:** 13 mi. of trail from road at mouth of Bridge Cr. **Owner:** E. O. Blankenship, Stehekin, Wash. (1940). **Ore:** Lead,

zinc, gold. **Ore min:** Galena, sphalerite, pyrite. **Deposit:** A pinching and swelling quartz vein 2 to 8 in. wide occurring along a fault in gneiss is heavily mineralized with sulfides. Vein traceable for 40 ft. **Dev:** Small open cut. **Ref:** 67, p. 43.

#### Silver King (26)

(see under copper)

#### Silver Trail (28)

(see under copper)

#### Snook and Ellen

(see Van Epps under antimony)

#### Spokane Boy and Girl (17)

(see under copper)

#### Summit (5)

**Loc:** NE¼ sec. 36, (35-14E), adjoins NW. corner of the Marlin claim. **Access:** About 3 mi. of trail from Stehekin road. **Prop:** 1 patented claim. **Owner:** Cascade Consolidated Mining & Smelting Co. (1910). **Ore:** Lead, gold. **Ore min:** Galena, pyrite. **Dev:** Shaft 45 ft. deep. **Ref:** 67, p. 43.

#### Sunday Morning (27)

(see under silver)

#### Tennessee

(see Jefferson and Tennessee)

#### Tiger

(see Galena)

#### Tiger (22)

(see under gold)

#### Van Epps (32)

(see under antimony)

#### White Star (34)

**Loc:** T. 23 N., R. 15 E., near Silver Fiend in Solomon Cr. Gulch. **Prop:** 1 claim. **Owner:** John Stewart (1897). **Ore:** Lead, silver, gold, copper. **Ore min:** Galena, tetrahedrite. **Gangue:** Quartz. **Dev:** 20-ft. adit. **Ref:** 63, p. 62. 67, p. 29.

### CLARK COUNTY

#### Silver Star (1)

(see under copper)

### COWLITZ COUNTY

#### Green Mountain (1)

(see under gold)

### FERRY COUNTY

#### Abe Lincoln (125)

(see under copper)

#### Ada

(see Laura S.)

#### Addie B (132)

(see under copper)

#### Addison (136)

(see under copper)

#### Admiral (53)

**Loc:** Near center sec. 28, (32-36E), Covada dist. **Prop:** 1 claim. **Owner:** Joseph Hartwell, Covada, Wash. (1913). **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** 8-in. quartz vein in granodiorite. **Dev:** 30-ft. slope and 20-ft. shaft. **Ref:** 122, pp. 157-158. 158. 163, p. 76.

#### Advance (28)

(see under silver)

#### Ajax (54)

**Loc:** Sec. 27, (32-36E), Covada dist. **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** Narrow quartz veins. **Ref:** 122, pp. 157-158.

#### American Granby

(see under copper)

#### Anchor

(see under silver)

#### Anderson (116)

**Loc:** Sec. 35, (31-33E), ¼ mi. up Iron Cr. W. of Iron Creek mine. **Access:** 4 mi. up Iron Cr. road from State Highway No. 4. **Prop:** 1 claim. **Owner:** Shamrock Silver-Lead Mines, Inc. (1937). **Ore:** Lead, silver. **Deposit:** A 1-ft. vein in limestone exposed for a distance of 150 ft. **Assays:** Said to av. 4% Pb, 15 oz. Ag. **Ref:** 129, p. 219.

#### Apex

(see Big Chief)

#### Apollo

(see California under gold)

#### Big Chief (Apex, Chief) (29)

**Loc:** Near center NE¼ sec. 35, (32-36E), Covada dist. **Prop:** 6 claims: Apex, Legal Tender, Carbonate Chief, Jennie C., Little Pet, Ripsaw. **Owner:** Modern Gold Dredging Co., Spokane, Wash., leasing from May Kummer, Seattle, Wash. (1951-1952). Apex Mining Co. (1909). Big Chief Mining Co. (1913-1918). **Ore:** Lead, zinc, molybdenum, tungsten, silver. **Ore min:** Galena, sphalerite, pyrite, arsenopyrite, molybdenite, scheelite, wolframite, pyrrhotite. **Deposit:** Quartz veins along bedding planes of a series of slate, quartzite, and argillite intruded by several aplite dikes. **Dev:** Several long crosscuts, several shafts and drifts. **Assays:** Owner's samples showed 0.6% to 2.2% WO<sub>3</sub>. **Ref:** 46, p. 136. 112, 1918, p. 169. 122, pp. 164-165. 133, p. 32. 158. 163, pp. 83-84.

#### Big Joker

(see Messenger)

#### Big Lake (Cuba) (13)

**Loc:** Secs. 2 and 11, (34-36E), about ½ mi. W. of the Columbia R. **Elev:** 600 ft. above the river. **Access:** 10 mi. by road from railroad at Kettle Falls bridge. **Prop:** 12 unpatented claims. **Owner:** Big Lake Mining Co., Spokane, Wash. (1943-1951). Ferrry Mining Co. (1929-1937). **Ore:** Lead, zinc, silver, gold, copper. **Ore min:** Galena, pyrite, sphalerite, chalcopyrite. **Deposit:** Small irregular quartz veins in a shear zone in schistose grits and quartzite. Granite which cuts the metamorphics contains some pyrite. Shear zone said to have an av. width of 3 ft. **Dev:** 793-ft adit, 3 shafts, 20, 30, and 142 ft. deep. **Assays:** Nil to 15% Pb, nil to 3% Zn, 0.8 to 40.32 oz. Ag, 0.02 to 0.44 oz. Au. A 6-ft. chip sample from vein at winze showed 4.2% Pb, 2.5% Zn, 0.10% Cu, 0.16 oz. Au, 3.65 oz. Ag. **Ref:** 46, p. 119. 68, p. 6. 97, 1928, p. 699. 106, 12/19/29. 157. 158.

#### Black Hawk (30)

**Loc:** SW¼ sec. 26, (32-36E), 1¼ mi. N. of Covada post office. **Prop:** 1 claim. **Owner:** Mr. Kelley (1912). **Ore:** Lead, zinc, antimony, silver, gold. **Ore min:** Galena, sphalerite, stibnite, pyrite. **Deposit:** 3 quartz veins from 8 to 12 in. wide in granite. **Dev:** 60-ft. adit, 25-ft. open cut, 80-ft. adit. **Assays:** 12-in. vein assayed 0.03 oz. Au, 3.30 oz. Ag. **Ref:** 163, p. 64.

#### Black Tail (31)

**Loc:** Near center S½ sec. 36, (32-36E), ½ mi. NE. of Covada post office. **Prop:** 1 claim. **Ore:** Lead. **Ore min:** Galena. **Deposit:** Quartz vein in granodiorite up to 4 ft. wide. Nearby 4-in.

quartz stringer contains galena. **Dev:** 12-ft. shaft, several small cuts and pits. **Assays:** Av. sample from discovery shaft assayed tr. Au, 0.20 oz. Ag. **Ref:** 122, p. 169. 163, pp. 51-52.

#### Black Thorn (55)

**Loc:** Near center S. line sec. 27, (32-36E), 1½ mi. NW. of Covada post office. **Prop:** 1 claim. **Owner:** Black Thorn Mining Co. (1912). **Ore:** Lead, silver, gold. **Ore min:** Pyrite, galena. **Deposit:** Quartz vein in granodiorite 3 in. to 1 ft. wide irregularly banded with galena and pyrite which together make up a small percentage of the whole. **Dev:** Adit 210 ft. in talus and 55 ft. in rock, also a 15-ft. adit. **Assays:** 0.04 oz. Au, 1.4 oz. Ag on sample from 15-ft. adit. **Ref:** 122, p. 160. 163, p. 70.

#### Blevins

(see Meadow Creek under copper)

#### Blue Bird (86)

**Loc:** NE¼SW¼ sec. 1, (31-36E), Covada dist. **Prop:** 1 claim. **Ore:** Lead, silver. **Ore min:** Pyrite, galena. **Gangue:** Quartz, silicified country rock. **Deposit:** Mineralized quartz stringers and silicified limestone near contact with granodiorite. **Dev:** 12-ft. shaft, short adit, discovery hole. **Assays:** Tr. Au, 1.0 oz. Ag. **Ref:** 122, p. 167. 163, pp. 48-49.

#### Blue Horse (8)

(see under silver)

#### Blue Jacket (9)

(see under silver)

#### Blue Jay (101)

**Loc:** Near center W. line sec. 30, (32-37E), Covada dist. **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** 3-in. quartz vein in which galena and pyrite are fairly abundant. **Dev:** Shallow pit. **Ref:** 122, p. 170.

#### Blue Mountain

(see Jennie under gold)

#### Boston & New York (4)

(see under silver)

#### Burlington and Delaware (119)

**Loc:** S½ sec. 15 and N½ sec. 22, (31-34E), 1 mi. E. of Ninemile Cr., Keller dist. **Prop:** 2 patented claims: Burlington No. 2, Delaware No. 2. **Owner:** E. F. Spicer, Colville, and L. G. Wrather, Spokane, Wash. (1941). **Ore:** Lead, silver, gold. **Ore min:** Galena, pyrite, cerussite, limonite. **Deposit:** 5-ft. vein composed of porous quartz and limonite is traceable for ½ mi. The vein lies between limestone and black argillite. **Dev:** Adit said to be 270 ft. long. **Assays:** One assay shows \$25.16 Pb, \$16.35 Ag, \$1.24 Au. **Ref:** 46, p. 154. 58, p. 18. 122, p. 138. 158.

#### Butterfly (32)

**Loc:** Near center S. line sec. 36, (32-36E), ½ mi. E. of Covada post office. **Prop:** 1 claim. **Ore:** Lead, silver, gold. **Ore min:** Pyrite, galena. **Deposit:** 4- to 12-in. quartz vein cutting granodiorite near contact with quartzite. Other veins nearby. **Dev:** 13-ft. shaft, 200-ft. adit, 12-ft. and 25-ft. open cuts. **Assays:** 0.01 oz. Au, 30 oz. Ag. on av. sample from discovery vein. **Ref:** 122, p. 167. 163, p. 52.

#### Cabin

(see Advance under silver)

#### California (7)

(see under gold)

#### Captain (Gold Cup) (56)

**Loc:** NW¼ sec. 27, (32-36E), Covada dist. **Prop:** 1 claim. **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** 6-ft. quartz-calcite vein in granodiorite. **Dev:** 40-ft. crosscut. **Ref:** 122, pp. 157-158. 163, pp. 74-75.

#### Chief

(see Big Chief)

#### Chief Barnaby (12)

(see under silver)

#### Churchill

**Loc:** E½SE¼ sec. 30, (37-34E), near head of Lambert Cr. **Elev:** 4,100 ft. **Prop:** Abandoned (1953). **Ore:** Lead. **Deposit:** Nodules of galena in slate. **Dev:** 2 adits about 70 ft. apart vertically, the upper is 500 ft. and the lower is 550 ft. long. **Ref:** 158.

#### Clay (126)

(see under copper)

#### Cold Spring (16)

**Loc:** NE¼ sec. 23, NW¼ sec. 24, SW¼ sec. 13, (32-36E), Covada dist. **Elev:** 1,000 ft. **Prop:** 7 patented claims: Cold Spring, Fairview, Little Grouse, Anchor, F. & M., Mary, and one other. **Owner:** Glen L. and James Brink, Wenatchee, Wash. (1948). **Ore:** Lead, copper, zinc, molybdenum. **Ore min:** Molybdenite, pyrite, chalcopryite, galena, sphalerite. **Deposit:** Narrow crooked quartz vein along contact of mica schist and biotite-feldspar porphyry. Also a mineralized silicified shear zone in the argillite 15 ft. wide. **Dev:** 300-ft. adit from which a 100-ft. drift has been driven. **Ref:** 46, p. 120. 122, p. 172. 158.

#### Colorado (111)

**Loc:** E½SE¼ sec. 2, (31-34E), 1,000 ft. W. of U. S. prospect, Keller dist. **Ore:** Lead. **Ore min:** Galena, pyrite, arsenopyrite, limonite. **Gangue:** Quartz. **Deposit:** Lens 5 ft. thick and 20 ft. in dia. enclosed in limestone (mined out). Ore on dump is galena and limonite in quartz gangue. Also disseminated ore minerals in limestone. **Dev:** Open cut and 80-ft. crosscut, 50-ft. drift, and 12-ft. shaft. **Ref:** 122, p. 138.

#### Colorado (33)

**Loc:** E½ sec. 26, (32-36E), 2 mi. N. of Covada post office. **Access:** Road. **Prop:** 10 patented claims: Colorado Nos. 1 and 2, Agnes, Hazel, Diamond, Ohio, Chance, Hawthorne, Yellow Quartz, Little Eohippus. **Owner:** Dr. J. R. Collard, Salem, Oreg. (1934-1941). M. H. O'Connell (1905-1934). **Ore:** Lead, silver, gold. **Ore min:** Galena, stibnite. **Deposit:** 4-ft. vein with 2 ft. of ore cutting quartzite and granodiorite. **Dev:** 3 adits totaling more than 300 ft. in length. 2 of the adits were caved at portal in 1938. **Assays:** Ore said to av. \$7.00 Pb, Ag, \$3.00 Au. An av. sample from one adit showed tr. Au, 0.60 oz. Ag. **Ref:** 158. 163, pp. 63-64.

#### Comstock (1)

(see under copper)

#### Consolidated Mines and Smelting Co., Ltd.

(see under copper)

#### Copper Prince

(see under silver)

#### Cuba

(see Big Lake)

#### Curlew

**Loc:** Curlew dist. **Prop:** 8 claims and a millsite. **Owner:** National Lead-Silver Mining Co. (1918). Phoenix Gold & Copper Mining & Milling Co. (1911-1918). **Ore:** Lead, silver, zinc. **Dev:** Main adit over 1,000 ft. long, with several hundred ft. of shorter adits and shafts at higher levels. **Ref:** 98, 1918, p. 1451; 1922, p. 1660. 112, p. 193. 116, no. 2, 1911, pp. 40-41.

#### Cyprus

(see under gold)

**Dan Patch (17)**

(see under silver)

**Dead Shot (57)**

**Loc:** Near SW. cor. sec. 27, (32-36E), 2 mi. NW. of Covada.  
**Prop:** 1 claim. **Owner:** Golden Treasure Mining Co. (1909-1913). **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** 2 quartz veins in granodiorite, one has width of 1 ft. **Dev:** 20-ft. adit. **Ref:** 114, no. 5, 1909, p. 74. 122, pp. 157-158. 163, p. 77.

**Delaware**

(see Burlington and Delaware)

**Dill (58)**

**Loc:** SE¼ sec. 33, (32-36E), Covada dist. **Ore:** Lead, zinc.  
**Ore min:** Galena, sphalerite, pyrite. **Deposit:** 3- to 4-ft. vein sparsely mineralized. **Ref:** 46, p. 130. 122, p. 161.

**Discovery (34)**

**Loc:** Sec. 26, (32-36E), 1¼ mi. NW. of Covada post office.  
**Prop:** 1 claim. **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** 7-in. quartz vein in granodiorite. **Dev:** Open cut 10 ft. deep, 15 ft. long. **Ref:** 122, p. 162. 163, p. 65.

**Drummond (35)**

**Loc:** Near center S½ sec. 26, (32-36E), a little less than 1½ mi. N. of Covada post office. **Prop:** 1 claim. **Owner:** M. H. O'Connell, Covada, Wash. (1912). **Ore:** Lead, zinc, silver, gold. **Ore min:** Pyrite, galena, sphalerite. **Deposit:** 2-ft. quartz vein cutting granodiorite. Nearby is a second vein of well-mineralized crushed quartz. **Dev:** 10-ft. shaft, 95-ft. crosscut, open cuts. **Assays:** Crushed quartz vein assayed 0.02 oz. Au, 1.20 oz. Ag. **Ref:** 122, p. 162. 163, pp. 59-60.

**Etta (59)**

**Loc:** Near center SE¼ sec. 27, (32-36E), 1¼ mi. N. of Covada post office. **Prop:** 1 triangular claim. **Ore:** Lead, silver, gold. **Ore min:** Galena, pyrite. **Deposit:** 14-in. quartz vein in granodiorite, and several other smaller veins. **Dev:** 60-ft. shaft, 35-ft. adit, 6-ft. shaft. **Assays:** Av. sample from 14-in. vein assayed tr. Au, 0.30 oz. Ag. **Ref:** 122, pp. 157-158. 163, pp. 68-69.

**Frosty Meadow (115)**

**Loc:** NE¼ sec. 20, (31-34E). **Ore:** Lead (?). **Ore min:** Limonite. **Gangue:** Limestone. **Deposit:** Limonite-stained limestone exposed for a width of 40 ft. and considerably greater length. May be surface capping of a lode similar to that at Salnave prospect. **Dev:** Open pit. **Ref:** 122, p. 139.

**Galena (14)**

(see under silver)

**Gold Crown**

(see under silver)

**Gold Cup**

(see Captain)

**Gold Twenty (25)**

(see under gold)

**Golden Cord (137)**

(see under silver)

**Goldsmith (26)**

**Loc:** Near center sec. 22, (32-36E), Covada dist. **Ore:** Lead, zinc. **Ore min:** Pyrite, sphalerite, galena. **Gangue:** Quartz, calcite. **Deposit:** 1- to 4-in. vein in granodiorite. **Dev:** 30-ft. shaft, short adit. **Ref:** 46, p. 128. 122, p. 159.

**Good Ore (27)**

(see under silver)

**Grandview (81)**

**Loc:** Sec. 3, (31-36E), 2 mi. W. of Covada post office. **Prop:** 1 claim. **Owner:** J. C. Seaman (1912). **Ore:** Lead, silver, gold, tellurium. **Ore min:** Galena, sylvanite. **Deposit:** 4-ft. quartz vein in quartzite and slate. **Dev:** 80-ft. shaft from which a 10-ft. drift has been driven. **Ref:** 163, p. 79.

**Greasy Run (87)**

**Loc:** Near NW. cor. sec. 1, (31-36E), at Covada post office. **Prop:** 1 claim. **Owner:** A. B. Nickens (1912). **Ore:** Lead, silver, gold. **Ore min:** Galena, pyrite. **Deposit:** 2 quartz veins in granodiorite, one 4 to 8 in. wide, the other 1 ft. wide. **Dev:** Two 30-ft. shafts and a 15-ft. open cut. **Assays:** Sample assayed tr. Au, 2.20 oz. Ag. **Ref:** 122, p. 167. 163, p. 50.

**Great Eastern (18)**

**Loc:** SE¼ sec. 23, (32-36E), Covada dist. **Ore:** Lead, silver. **Deposit:** Mineralization reported to be similar to Monarch. **Ref:** 122, p. 172.

**Great Northern (123)**

(see under silver)

**Great Scott (19)**

**Loc:** SW¼ sec. 13, (32-36E), 3½ mi. N. of Covada post office. **Prop:** 1 claim. **Owner:** Mr. Messenger (1912). **Ore:** Lead, zinc, silver, gold. **Ore min:** Galena, sphalerite. **Deposit:** Quartz vein in quartzite. **Dev:** 2 shafts 8 to 9 ft. deep, several open cuts. **Assays:** Sample at discovery shaft assayed tr. Au, 0.20 oz. Ag. **Ref:** 122, pp. 174-175. 163, p. 72.

**Gwin (15)**

(see under silver)

**Hall Creek**

(see Gwin under silver)

**Henneway (117)**

**Loc:** Sec. 35, (31-33E). **Access:** 4 mi. up Iron Cr. road from State Highway No. 4. **Owner:** Tom Henneway (1913). **Ore:** Lead, zinc. **Ore min:** Sphalerite, galena, pyrite. **Gangue:** Silicified limestone. **Deposit:** Brecciated limestone silicified and sparsely mineralized with sphalerite, galena, pyrite. **Ref:** 122, p. 139.

**Hines (109)**

**Loc:** Near center SE¼ sec. 22, (32-33E). **Owner:** Frank Hines, Keller, Wash. (1913). **Ore:** Lead, gold. **Ore min:** Pyrite, galena. **Deposit:** 3-ft. pyrite-bearing quartz vein in argillite. Small bunches and irregular veinlets of galena in the argillite. **Dev:** 30-ft. inclined shaft. **Assays:** Pyrite-bearing quartz said to assay a few dollars in Au per ton. **Ref:** 122, p. 137.

**Humboldt (128)**

(see under copper)

**I. X. L. (88)**

**Loc:** Center sec. 1, (31-36E), ½ mi. SE. of Covada post office. **Prop:** 1 claim. **Owner:** James Hartwell (1912). **Ore:** Lead, gold, silver. **Ore min:** Pyrite, galena. **Deposit:** 3-ft. quartz vein in quartzite. **Dev:** 63-ft. adit and a shaft. **Assays:** Av. sample from discovery assayed 0.36 oz. Au, 0.24 oz. Ag. **Ref:** 122, p. 167. 163, p. 53.

**Idora (89)**

**Loc:** Near center E½ sec. 1, (31-36E), Covada dist. **Prop:** 1 claim. **Owner:** James Hartwell (1912). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** 4-in. quartz vein in quartzite and a zone of silicified quartzite in which are galena-bearing quartz veinlets. **Dev:** 60-ft. crosscut and 9-ft. shaft. **Ref:** 58, p. 32. 122, p. 167. 163, p. 59.

**Illinois (129)**

(see under copper)

**Imperial (60)**

**Loc:** Near center sec. 27, (32-36E), a little over 2 mi. NW. of Covada post office. **Prop:** 1 claim. **Owner:** G. E. Terpening and Mr. Messenger. **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** 3-in quartz vein in granodiorite. **Dev:** 204-ft. crosscut. **Ref:** 122, pp. 157-158. 163, p. 74.

**Iron Creek**

(see Shamrock under nickel)

**J. H. E. (20)**

**Loc:** Near SE. cor. sec. 24, (32-36E), Covada dist. **Ore:** Lead, zinc, silver. **Ore min:** Galena, sphalerite. **Deposit:** Specimens said to have come from this prospect show fairly abundant galena and sphalerite. **Ref:** 122, p. 172.

**Jaybird (102)**

**Loc:** Near NW. cor. sec. 30, (32-37E), 3 mi. from Covada post office. **Prop:** 1 claim. **Owner:** Ira B. Gifford (1912). **Ore:** Lead, silver, gold. **Deposit:** 4-in. quartz vein. **Dev:** 20-ft. adit. **Ref:** 122, p. 172. 163, pp. 72-73.

**Jennie (6)**

(see under gold)

**Joker (36)**

**Loc:** Near S. line SW¼ sec. 26, (32-36E), Covada dist. **Prop:** 1 claim, joins W. end of Black Hawk. **Ore:** Lead. **Deposit:** 8- to 12-in. quartz vein in granodiorite. **Dev:** 10-ft. shaft, 30-ft. open cut. **Assays:** Av. sample of vein at discovery shaft yielded neither Au nor Ag values. **Ref:** 122, p. 162. 163, p. 64.

**Juliet (Little Tom) (61)**

**Loc:** SE¼ sec. 28, (32-36E), Covada dist. **Prop:** 1 claim. **Owner:** George T. Eves and Arthur Slaton, Impach, Wash. (1949). **Ore:** Lead, silver, gold. **Ore min:** Pyrite, galena, arsenopyrite, reportedly stibnite. **Deposit:** 2 intersecting quartz veins. **Dev:** 150-ft. crosscut, several old open cuts. **Assays:** 0.02 oz. Au, 3.40 oz. Ag. **Ref:** 122, pp. 157-158. 158. 163, p. 78.

**Juno (10)**

(see under silver)

**Kentucky Bell (37)**

**Loc:** SE¼ sec. 36, (32-36E), nearly 1 mi. E. of Covada post office. **Prop:** 1 claim. **Owner:** J. C. Seaman (1912). **Ore:** Lead, zinc, silver, gold. **Ore min:** Pyrite, arsenopyrite, sphalerite, galena. **Gangue:** Quartz, silicified argillite. **Deposit:** A 5-ft. vein in argillite consisting of quartz and silicified argillite breccia is nearly barren of ore minerals. A 3-ft. parallel vein shows scant mineralization. **Dev:** 500-ft. crosscut, 30-ft. shaft, and open pits. **Ref:** 58, p. 36. 122, pp. 165-166. 163, pp. 55-56.

**Keystone (62)**

(see under silver)

**King Fraction (63)**

**Loc:** Sec. 27, (32-36E), Covada dist. **Prop:** 1 claim. **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** 1-ft. quartz vein in granodiorite. Small grains of galena and pyrite present in the quartz. **Dev:** 30-ft. shaft, open cuts. **Ref:** 122, pp. 157-158. 163, p. 67.

**King Richard**

(see Meadow Creek under copper)

**King Solomon (90)**

**Loc:** NW¼ sec. 1, (31-36E), 1,000 ft. S. of Covada post office. **Prop:** 1 claim. **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** At least 3 quartz veins 4 to 12 in. wide in granodiorite.

**Dev:** Several shafts, adits, and open cuts. **Assays:** Av. sample from discovery vein assayed tr. Au, 7.80 oz. Ag. **Ref:** 122, p. 167. 163, pp. 49-50.

**La Fleur**

(see Comstock under copper)

**Lakeview Fraction (38)**

**Loc:** Near SW. cor. sec. 36, (32-36E), Covada dist. **Prop:** 1 claim. **Owner:** C. C. Rohlfs (1912). **Ore:** Lead, silver, gold. **Ore min:** Galena, pyrite. **Deposit:** 12-in. quartz vein in granodiorite with 8 in. of granodiorite in its center. **Dev:** 8-ft. open cut and smaller openings. **Assays:** Av. sample assayed tr. Au, 0.60 oz. Ag. **Ref:** 122, p. 167. 163, p. 47.

**Lancaster (2)**

(see under copper)

**Laura S. (Ada) (82)**

**Loc:** Sec. 3, (31-36E), 2 mi. W. of Covada post office. **Prop:** 1 claim. **Owner:** H. A. Pea and E. J. Sparling (1913). **Ore:** Lead, silver, gold, tellurium. **Ore min:** Galena, pyrite, sylvanite. **Deposit:** Quartz vein in quartzite. **Dev:** 40-ft. shaft. **Ref:** 163, p. 79.

**Laurel (103)**

**Loc:** NW¼ sec. 30, (32-37E), Covada dist. **Prop:** 1 claim. **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** Irregular quartz seam in limestone and quartzite. **Dev:** Small open cut. **Ref:** 122, p. 172. 163, p. 73.

**Laurier**

(see Talisman under copper)

**Legal Tender (39)**

**Loc:** Near center W. line sec. 36, (32-36E), ½ mi. N. of Covada post office. **Prop:** 1 claim. **Owner:** A. M. Anderson (1912). **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite, pyrite. **Deposit:** 3-ft. vein of quartz and mineralized country rock. **Dev:** 8-ft. shaft. **Ref:** 46, p. 137. 163, p. 62.

**Little Jay (40)**

**Loc:** Near SW. cor. sec. 26, (32-36E), 1 mi. NW. of Covada post office. **Prop:** 1 claim. **Ore:** Lead, silver, gold. **Ore min:** Galena, pyrite. **Deposit:** 8-in. quartz vein in granodiorite. **Dev:** 10-ft. shaft and 10-ft. open cut. **Assays:** Av. sample from discovery shaft assayed tr. Au, 0.20 oz. Ag. **Ref:** 122, p. 162. 163, p. 65.

**Little Tom**

(see Juliet)

**Lone Pine (41)**

**Loc:** Near center sec. 35, (32-36E), Covada dist. **Prop:** 1 claim. **Owner:** Edward Sizemore (1912). **Ore:** Lead, zinc. **Deposit:** Quartz vein in quartzite. **Dev:** Open cut 10 ft. long, 8 ft. deep. **Ref:** 122, p. 164. 163, p. 62.

**Longstreet (42)**

(see under silver)

**Lucky Boy**

**Loc:** Covada area. **Ore:** Lead, silver. **Prod:** 1938, 1939. **Ref:** 58, p. 41. 97, 1939, p. 490; 1940, p. 477.

**McJunkin (110)**

(see under silver)

**Mabel T. (114)**

**Loc:** Near center SE¼ sec. 10, (31-34E), S. of the trail, Keller dist. **Prop:** 3 patented claims. **Ore:** Lead, silver. **Ore min:** Galena. **Gangue:** Quartz, calcite. **Deposit:** Reportedly an ore body 1 ft. wide and 20 ft. long. Wall rock is limestone and carbonaceous argillite. **Dev:** 300-ft. adit. **Ref:** 122, p. 138.



**Mayflower (91)**

**Loc:** N $\frac{1}{2}$ NW $\frac{1}{4}$  sec. 1, (31-36E), a few hundred ft. SW. of old Covada post office. **Prop:** 1 claim. **Owner:** C. C. Rohlf (1912). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** 18-in. quartz vein in granodiorite near contact with quartzite. **Assays:** Av. sample assayed tr. Au, 1.60 oz. Ag. **Ref:** 122, p. 167. 163, p. 47.

**Meadow Creek (127)**

(see under copper)

**Messenger (Big Joker) (43)**

**Loc:** SE $\frac{1}{4}$  sec. 36, (32-36E), Covada dist. **Prop:** 1 claim. **Owner:** Mr. Messenger (1912). **Ore:** Lead, silver. **Ore min:** Galena, pyrite. **Deposit:** Several mineralized quartz veins from 12 to 26 in. wide in granodiorite near its contact with other rock. **Dev:** 12-ft. shaft; pit 8 ft. deep, 10 ft. long, and 5 ft. wide; 25-ft. shaft; and 10-ft. shaft. **Prod:** 1934. **Ref:** 97, 1935, p. 352. 122, p. 169. 163, p. 55.

**Meteor (64)**

(see under silver)

**Midnight**

(see under silver)

**Mineral Hill (124)**

**Loc:** Near NE. cor. sec. 24, (30-32E). **Ore:** Lead (?). **Ore min:** Black unoxidized sulfides. **Gangue:** Quartz. **Deposit:** A 1-ft. vein composed of iron-stained porous quartz containing dark spots, apparently unoxidized sulfides. **Ref:** 122, p. 127.

**Monarch (21)**

**Loc:** SW $\frac{1}{4}$  sec. 14, (32-36E), Covada dist. **Ore:** Lead. **Ore min:** Galena. **Deposit:** 3-ft. quartz vein in granodiorite contains a little galena. **Ref:** 122, p. 172.

**Mono (122)**

(see under zinc)

**Montana (65)**

(see under silver)

**Neglected (80)**

**Loc:** S $\frac{1}{2}$  sec. 32, (32-36E), Covada dist. **Prop:** 1 claim of Reserve group. **Ore:** Lead. **Ore min:** Pyrite, galena. **Deposit:** 8-in. quartz vein in quartzite contains some pyrite and galena. **Dev:** 20-ft. shaft. **Assays:** Av. sample assayed no Au, tr. Ag. **Ref:** 122, p. 156. 158. 163, p. 76.

**New York (66)**

**Loc:** North central part sec. 33, (32-36E), 2 $\frac{1}{2}$  mi. NW. of Covada post office. **Prop:** 1 claim. **Owner:** Charles Fish, Sprague, Wash. (1943). **Ore:** Lead, zinc, silver, gold. **Ore min:** Pyrrhotite, pyrite, sphalerite, galena, arsenopyrite, pyrrargyrite. **Deposit:** 12- to 16-in. quartz vein in granodiorite. **Dev:** 2 shafts, 40 and 60 ft. deep, open cut. **Assays:** Av. of 3 assays showed 10.3% Zn, 15.2% Pb, 7.8 oz. Ag, 0.07 oz. Au. Other selected samples show 0.02 oz. Au, 4 oz. Ag where pyrrhotite predominates. Where galena predominates Au is same but Ag only half. **Ref:** 122, p. 157. 158. 163, p. 78.

**Nez Perce (84)**

**Loc:** SW $\frac{1}{4}$  sec. 21, (31-36E). **Prop:** Several claims. **Ore:** Lead, zinc, copper. **Ore min:** Galena, sphalerite, pyrite, chalcopryrite. **Deposit:** 6-in. quartz-calcite vein accompanied by 4 $\frac{1}{2}$  ft. of brecciated argillite. Vein contains liberal percentages of ore minerals. **Dev:** Short adit. **Ref:** 46, p. 138. 122, p. 177.

**Ninemile Creek (92)**

**Loc:** NW $\frac{1}{4}$  sec. 1, (31-34E). **Ore:** Lead (?). **Ore min:** Limonite. **Gangue:** Limestone. **Deposit:** Limonite-stained limestone 40 ft. in dia. may represent capping of a lode like that at Salnave prospect. **Dev:** Open pit. **Ref:** 122, p. 139.

**North Star (133)**

**Loc:** SW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 30, (30-33E), Keller dist. **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite, pyrite. **Deposit:** Fragments of quartz on dump indicate a vein at least 10 in. wide. Fragments are sparsely mineralized. **Dev:** Shaft. **Ref:** 46, p. 150. 122, p. 125.

**Number Seven**

(see under silver)

**Ohio (44)**

**Loc:** Near center sec. 26, (32-36E), 1 $\frac{1}{2}$  mi. NW. of Covada post office. **Prop:** 1 claim. **Owner:** M. H. O'Connell (1912). **Ore:** Lead, silver. **Ore min:** Galena, pyrite. **Deposit:** 4-in. quartz vein in granodiorite said to be a side vein parallel to the main vein. **Dev:** Adit 150 ft. under cover. **Ref:** 122, p. 162. 163, p. 59.

**Oom Paul (67)**

**Loc:** Near center SE $\frac{1}{4}$  sec. 27, (32-36E), 1 $\frac{1}{2}$  mi. NW. of Covada post office. **Prop:** 1 claim. **Owner:** S. L. Magee (1912). **Ore:** Lead, silver. **Ore min:** Galena, pyrite. **Deposit:** Quartz vein 4 to 12 in. wide in granodiorite. Sulfides constitute up to 50% of the vein in places. **Dev:** 60-ft. adit, 50-ft. shaft, 15-ft. open cut. **Assays:** Selected sample from discovery shaft assayed 69.5% Pb, 25.14 oz. Ag. **Ref:** 122, p. 161. 163, pp. 67-68.

**Ophir (134)**

**Loc:** Secs. 19, 20, 29, and 30, (30-33E), Keller dist. **Prop:** 6 claims: Ophir Nos. 1 to 6. **Owner:** E. D. Mortenson and Albert Eckel, Keller, Wash. (1952—). Orin A. Mortenson (1938). **Ore:** Lead, silver, gold, zinc. **Ref:** 133, p. 38. 158.

**Oregon (112)**

(see under silver)

**Oregon**

(see Illinois under copper)

**Pacific Mutual**

(see Addison under copper)

**Panama (3)**

(see under gold)

**Patterson**

(see Jennie under gold)

**Paulsen (85)**

**Loc:** Secs. 20 and 21, (31-36E). **Owner:** P. A. Paulsen (1913). **Ore:** Lead, zinc. **Ore min:** Pyrite, sphalerite, galena. **Deposit:** Reportedly quartz veins 4 to 8 ft. wide containing pyrite, galena, and sphalerite. **Ref:** 122, p. 176.

**Pilgrim (93)**

**Loc:** NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 1, (31-36E), Covada dist. **Prop:** 1 claim. **Ore:** Lead, silver, gold. **Ore min:** Pyrite, galena. **Gangue:** Quartz. **Deposit:** Vein an extension of the Plymouth Rock vein. Wall rock quartzite and granodiorite. **Dev:** Discovery pit, several small open cuts. **Assays:** Av. sample showed tr. Au, 0.06 oz. Ag. **Ref:** 122, p. 167. 163, p. 48.

**Plymouth Rock (94)**

**Loc:** N $\frac{1}{2}$ NW $\frac{1}{4}$  sec. 1, (31-36E), 1,500 ft. E. of Covada post office. **Prop:** 1 claim. **Ore:** Lead, zinc, silver, gold. **Ore min:** Galena, sphalerite, pyrite. **Deposit:** Irregular quartz vein as much as 2 $\frac{1}{2}$  ft. wide along contact between granodiorite and limestone. **Dev:** 150-ft. crosscut, from which a 125-ft. drift has been driven. **Assays:** 0.01 oz. Au, 15 oz. Ag, 6% Pb. **Ref:** 46, p. 135. 122, p. 165. 163, p. 48.

**Polaris (45)**

**Loc:** N $\frac{1}{2}$ SE $\frac{1}{4}$  sec. 36, (32-36E),  $\frac{3}{4}$  mi. E. of Covada post office. **Prop:** 1 claim. **Owner:** Henry Garrett and H. P. Stev-



enson (1912). **Ore:** Lead, silver, gold. **Ore min:** Pyrite, galena. **Deposit:** 8-in. quartz vein in granodiorite. **Dev:** 20-ft. shaft, 100-ft. adit, 7-ft. shaft, several open cuts and pits. **Assays:** Av. sample assayed tr. Au, 0.20 oz. Ag. **Ref:** 122, p. 169. 163, p. 54.

#### Polepick (130)

(see under copper)

#### Poor Man's Hope (140)

**Loc:** Near NE. cor. sec. 1, (29-33E), Keller dist. **Prop:** 1 patented claim. **Ore:** Lead, zinc, copper, silver. **Ore min:** Galena, sphalerite, pyrite, chalcopryrite. **Gangue:** Quartz, calcite. **Deposit:** 20-in. quartz vein traceable for 100 ft. is sparsely mineralized. Wall rock is quartzite, schist, and argillite. **Dev:** 35-ft. shaft. **Ref:** 46, p. 156. 122, pp. 131-132.

#### Prescott (68)

**Loc:** NE¼ sec. 33, (32-36E), Covada dist. **Ore:** Lead, zinc. **Ore min:** Pyrite, galena, sphalerite. **Deposit:** 3- to 4-ft. vein sparsely mineralized. **Ref:** 46, p. 130. 122, p. 161.

#### Quandary (95)

**Loc:** S½NW¼ sec. 1, (31-36E), 1,500 ft. E. of Covada post office. **Prop:** 1 claim. **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** Thin "layer" of quartz in quartzite. **Dev:** 20-ft. open cut. **Ref:** 122, p. 167. 163, p. 49.

#### Rattlesnake (104)

**Loc:** S½NW¼ sec. 30, (32-37E), Covada dist. **Ore:** Lead, silver, gold, zinc. **Ore min:** Pyrite, galena, sphalerite. **Gangue:** Quartz. **Deposit:** 2-in. mineralized quartz vein in metamorphics and a shear zone containing several mineralized quartz veinlets. **Dev:** 200-ft. adit; 100 ft. in talus is lined with ice in summer. Discovery pit. **Ref:** 58, p. 57. 122, p. 170.

#### Red Chief (69)

**Loc:** W. center sec. 34, (32-36E), 2 mi. NW. of Covada post office. **Prop:** 1 claim. **Ore:** Lead, silver, gold. **Ore min:** Galena, pyrite. **Gangue:** Quartz, breccia. **Deposit:** 4-ft. vein between granodiorite and schist. The vein, composed of quartz and brecciated wall rock, contains a little galena and pyrite. Part of the vein wholly in granodiorite. **Dev:** 20-ft. incline, 25-ft. adit, and 2 small shafts. **Ref:** 122, p. 161. 163, p. 78.

#### Ren Rice (22)

**Loc:** SW¼ sec. 13, (32-36E), 3½ mi. N. of Covada post office. **Prop:** 1 claim. **Owner:** L. G. Curry (1912). **Ore:** Lead, zinc, silver, gold. **Ore min:** Galena, sphalerite. **Deposit:** 6-in. vein of quartz, somewhat crushed, cuts quartzite. **Dev:** 12-ft. shaft. **Assays:** Av. sample of vein assayed tr. Au, 0.30 oz. Ag. **Ref:** 122, pp. 174-175. 163, p. 71.

#### Reserve (79)

(see under silver)

#### Robert E. Lee (46)

(see under antimony)

#### Romulus (70)

**Loc:** Near SE. cor. sec. 28, (32-36E), Covada dist. **Owner:** George T. Eves and Arthur Slaton, Impach, Wash. (1949). **Ore:** Lead, zinc, silver, gold. **Ore min:** Galena, pyrite, sphalerite. **Deposit:** 5-ft. lode in granodiorite composed of several closely spaced quartz veinlets separated by sericitized granodiorite. Scattered galena and pyrite. **Dev:** Inclined shaft 110 ft. deep, now caved, and several open cuts. **Ref:** 58, p. 59. 122, p. 160. 158.

#### Roulette (23)

**Loc:** SE¼ sec. 23, (32-36E), Covada dist. **Ore:** Lead. **Deposit:** Mineralization reported to be similar to Monarch. **Ref:** 122, p. 172.

#### Rover Bonanza (135)

(see under silver)

#### Royal Ann (47)

**Loc:** S. center sec. 26, (32-36E), slightly more than 1 mi. N. of Covada post office. **Prop:** 3 claims: Royal Ann Nos. 1 to 3. **Owner:** C. C. Rohlfis (1912). **Ore:** Lead, silver, zinc, gold. **Ore min:** Galena, sphalerite, cerussite, pyrite. **Deposit:** 4 quartz veins from 6 to 16 in. wide in granodiorite. 2 veins well mineralized. **Dev:** 3 adits, 75, 110, and 72 ft. long; 2 shafts, 10 and 40 ft. deep; and a 25-ft. open cut. **Assays:** Av. sample from discovery shaft on Royal Ann No. 3 assayed 0.02 oz. Au, 3.20 oz. Ag. Av. sample from 2 parallel veins on Royal Ann No. 1 assayed 0.04 oz. Au, 12.50 oz. Ag. **Ref:** 46, pp. 131-132. 122, pp. 161-162. 163, pp. 60-61.

#### St. Patrick (71)

**Loc:** E½SE¼ sec. 27, (32-36E), 1½ mi. NW. of Covada post office. **Prop:** 1 claim. **Owner:** Mr. Kelly (1912). **Ore:** Lead, silver, gold. **Ore min:** Galena, pyrite. **Gangue:** Quartz, talc. **Deposit:** 2 veins in quartzite, one 3 ft. wide, the other 4 in. wide. **Dev:** 2 shafts, one 16 ft. deep, and 70-ft. adit. **Assays:** Av. sample from 4-in. vein assayed 0.03 oz. Au, 2.00 oz. Ag. **Ref:** 122, pp. 157-158. 163, p. 68.

#### St. Paul (24)

**Loc:** Sec. 24, (32-36E), 2 mi. NE. of Covada post office. **Prop:** 1 claim. **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** 8-in. quartz vein in quartzite. Ore minerals scattered through the vein and about 1 ft. of the wall rock. **Dev:** 10-ft. shaft. **Ref:** 122, p. 172. 163, p. 73.

#### Salnave (120)

**Loc:** N½ sec. 16, (31-34E). W. of the main fork of the creek. **Prop:** 1 claim. **Owner:** George Salnave (1913). **Ore:** Lead. **Ore min:** Galena, pyrite. **Gangue:** Limestone. **Deposit:** Limestone mineralized appreciably to a width of 10 in. along contact with micaceous argillite. Brecciated by post-mineral movement. **Dev:** 120-ft. adit. **Ref:** 122, p. 139.

#### San Poil Monitor

(see Meadow Creek under copper)

#### Several (72)

**Loc:** S. center sec. 27, (32-36E), Covada dist. **Prop:** 1 claim. **Owner:** G. E. Terpening (1912). **Ore:** Lead, zinc, copper, silver, gold. **Ore min:** Sphalerite, galena, pyrite, chalcopryrite. **Gangue:** Quartz. **Deposit:** Surface vein av. 10 in. in width. Adit cuts 2 veins 2 to 4 in. wide banded with ore minerals. Granodiorite country rock. **Dev:** 200-ft. adit with drifts aggregating 150 ft., a shallow discovery shaft, and several open cuts. **Assays:** Av. sample from discovery shaft assayed tr. Au, 1.00 oz. Ag. **Ref:** 46, p. 129. 122, pp. 160-161. 163, p. 70.

#### Several Fraction (73)

**Loc:** Near center SE¼ sec. 27, (32-36E), 1¼ mi. NW. of Covada post office. **Prop:** 1 claim. **Owner:** G. A. Mathews (1912). **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** 4-in. quartz vein in granodiorite. **Dev:** Two 6-ft. shafts and a 20-ft. shaft, several open cuts. **Ref:** 122, pp. 157-158. 163, p. 69.

#### Shamrock (118)

(see under nickel)

#### Shoo Fly (48)

**Loc:** Near center NE¼ sec. 36, (32-36E), 1 mi. NE. of Covada post office. **Prop:** 1 claim. **Owner:** G. W. Sizemore (1912). **Ore:** Lead. **Ore min:** Galena, pyrite. **Gangue:** Quartz, aplite. **Deposit:** 1½- to 4-ft. vein of quartz and an 80-ft. zone of mineralized aplite near granodiorite-quartzite contact. **Dev:** 6-ft. shaft; 165-ft. adit extends into Shoo Fly from Polaris claim; 30-ft. open cut. **Ref:** 122, p. 169. 163, p. 66.

**Silver Bell (105)**

**Loc:** Near NE. cor. sec. 31, (32-37E), near end of a SE. spur of Rattlesnake Mtn., Covada dist. **Prop:** 1 claim. **Owner:** Lee Peone, Inchelium, Wash. (1941). **Ore:** Lead, zinc, gold, silver, copper. **Ore min:** Galena, sphalerite, pyrite. **Gangue:** Hornstone. **Deposit:** Hornstone that weathers rusty is irregularly mineralized. A width of at least 1 ft. shows a fair proportion of galena. **Dev:** Short adit, shaft, and crosscut. **Assays:** High-grade ore, \$50; milling grade ore, \$10 per ton. **Prod:** 29 tons 1940, 84 tons 1941. **Ref:** 46, pp. 121-122. 97, 1941, p. 473; 1942. 122, pp. 171-172.

**Silver Crown No. 3 (96)**

**Loc:** NE¼ sec. 1, (31-36E), 1 mi. E. of Covada. **Prop:** Small triangular claim. **Owner:** Mr. Howe (1910). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** 6-in. quartz vein in quartzite carries considerable galena. **Dev:** 12-ft. shaft. **Assays:** Sample from shaft assayed 0.02 oz. Au, 0.60 oz. Ag. **Ref:** 122, p. 166. 163, p. 57.

**Silver Dollar (97)**

**Loc:** NE¼NE¼ sec. 1, (31-36E), Covada dist. **Prop:** 1 claim. **Ore:** Lead. **Ore min:** Galena, pyrite. **Deposit:** Quartz vein in granodiorite. **Dev:** 8-ft. shaft. **Ref:** 122, p. 167. 163, p. 56.

**Silver King (139)**

(see under silver)

**Silver Leaf (106)**

(see under silver)

**Silver Pick**

(see under silver)

**Silver Plume (98)**

**Loc:** Near NE. cor. sec. 2, (31-36E), a few hundred ft. W. of Covada post office. **Elev:** 1,900 ft. **Prop:** 1 claim. **Owner:** G. W. Sizemore (or J. M. Anderson ?) (1912). **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite, pyrite. **Gangue:** Quartz. **Deposit:** 2 quartz veins in black siliceous argillite, one 20 in. wide, the other 4 in. wide, carry appreciable amounts of ore minerals. **Dev:** 160-ft. adit, other shallow openings. **Ref:** 46, p. 134. 122, pp. 164, 175-176. 163, pp. 50-51, 62.

**Silver Queen (83)**

**Loc:** Near W. line NW¼ sec. 3, (31-36E), Covada dist. **Prop:** 1 claim. **Owner:** Lee Peone, Inchelium, Wash. (1941). **Ore:** Lead, zinc, silver. **Ore min:** Pyrite, sphalerite, galena. **Deposit:** 1½-ft. quartz vein in schistose argillite contains appreciable quantities of ore minerals. **Dev:** 2 shafts. **Ref:** 46, pp. 121-122. 122, pp. 162-163.

**Silver Spar (49)**

**Loc:** Near SE. cor. sec. 35, (32-36E), 1,500 ft. N. of Covada post office. **Prop:** 1 claim. **Owner:** A. M. Anderson (1912). **Ore:** Lead, zinc, silver. **Ore min:** Galena, sphalerite. **Deposit:** 12-in. quartz vein in quartzite. **Dev:** 12-ft. shaft. **Ref:** 122, p. 164. 163, p. 62.

**Silver Tip (11)**

(see under silver)

**Snowstorm (White Swan) (74)**

**Loc:** Near E. center sec. 28, (32-36E), 2½ mi. NW. of Covada post office. **Prop:** 1 claim. **Owner:** G. A. Mathews and G. W. Sizemore (1912). **Ore:** Lead, silver, gold. **Ore min:** Pyrite, galena. **Deposit:** Narrow mineralized quartz vein in granodiorite. **Dev:** 10-ft. shaft, 15-ft. shaft, 600-ft. adit from which a 100-ft. drift has been driven. **Assays:** One sample assayed tr. Au, 0.30 oz. Ag. **Ref:** 122, pp. 157-158. 158. 163, p. 77.

**Stemwinder**

(see under silver)

**Stray Dog (75)**

(see under silver)

**Summit (138)**

(see under zinc)

**Summit (50)**

**Loc:** SE¼ sec. 36, (32-36E), E. of and parallel to Silver Dollar and Kentucky Bell claims, Covada dist. **Prop:** 1 claim. **Ore:** Lead, antimony, silver. **Ore min:** Galena, stibnite (?), pyrite. **Deposit:** Several quartz veins in quartzite; one is 6 in. wide. **Dev:** 3 shafts, 15, 20, and 25 ft. deep. **Ref:** 163, pp. 56-57.

**Sunset (99)**

**Loc:** W½NE¼ sec. 1, (31-36E), a little more than ½ mi. E. of Covada. **Prop:** 1 claim. **Owner:** T. B. Miller (1912). **Ore:** Lead, silver, gold. **Ore min:** Pyrite, galena. **Deposit:** Small stringers of quartz in quartzite and granodiorite. **Dev:** 14-ft. shaft. **Assays:** Av. sample from discovery shaft assayed tr. Au, 0.30 oz. Ag. **Ref:** 122, p. 167. 163, p. 53.

**Syndicate (76)**

**Loc:** Near NE. cor. sec. 34, (32-36E), Covada dist. **Prop:** 1 claim. **Owner:** J. W. Bartlett (1912). **Syndicate Mining Co.** (1909). **Ore:** Lead, silver. **Ore min:** Galena. **Deposit:** Several small galena-bearing quartz veinlets in granodiorite. **Dev:** 800-ft. crosscut. **Ref:** 58, p. 67. 122, p. 158. 163, p. 71.

**Talisman (5)**

(see under copper)

**Three Pines (51)**

**Loc:** S½SE¼ sec. 36, (32-36E), ¾ mi. E. of Covada post office. **Prop:** 1 claim. **Ore:** Lead. **Ore min:** Galena. **Deposit:** 16-in. quartz vein in granodiorite. **Dev:** 10-ft. shaft. **Ref:** 122, p. 169. 163, p. 56.

**Twin Pines (100)**

**Loc:** SW¼ sec. 13, (31-36E), Covada dist. **Ore:** Lead. **Ore min:** Pyrite, galena. **Deposit:** 5-ft. vein consisting of alternate layers of crushed argillite and vein quartz that contains a little pyrite and galena. **Ref:** 122, p. 176.

**U. S. (113)**

**Loc:** Near center W½ sec. 1, (31-34E), Keller dist. **Ore:** Lead, silver, gold. **Ore min:** Galena, pyrite, arsenopyrite. **Deposit:** A 6- to 10-in. quartz vein along junction of schist and limestone. 2-in. layer on footwall is nearly pure galena. **Dev:** 50-ft. crosscut with a 30-ft. drift. **Assays:** 2-in. layer assayed 49.5% Pb, 59.96 oz. Ag, 0.04 oz. Au. **Ref:** 122, pp. 137-138.

**Veda W.**

(see under silver)

**Vernie (77)**

**Loc:** Center sec. 34, (32-36E), Covada dist. **Prop:** 1 claim. **Owner:** H. Garrett and W. A. Pea. **Ore:** Lead, zinc. **Ore min:** Pyrite, galena, sphalerite. **Deposit:** 4-ft. quartz vein in quartzite near contact with granodiorite. Vein impregnated with ore minerals in places. **Dev:** 50-ft. adit, 10-ft. shaft, 40-ft. shaft. **Ref:** 46, p. 130. 122, p. 161. 163, pp. 78-79.

**Walla Walla (131)**

(see under copper)

**Wanda Mountain (121)**

**Loc:** Near S. line SE¼ sec. 13, (30-32E). **Ore:** Lead. **Ore min:** Galena. **Gangue:** Granite, quartz porphyry. **Deposit:** Seams in quartz porphyry and granite cut by the porphyry contain small crusts of galena. **Ref:** 122, p. 127.

**Welcome**

(see Boston &amp; New York under silver)

**White Rose (78)**

**Loc:** Near center W. line sec. 33, (32-36E), 3 mi. NW. of Covada. **Prop:** 1 claim. **Owner:** White Rose Mining Co. (1909). **Ore:** Lead, silver, zinc. **Ore min:** Pyrite, galena, sphalerite. **Gangue:** Quartz. **Deposit:** 2 parallel veins about 75 ft. apart cut granodiorite. Veins consist of crumbly iron-stained quartz cut by thin veinlets of ore minerals. One vein 2½ ft. wide, the other 3 ft. **Dev:** 2 shafts, one 60 ft. deep. **Assays:** Sample from ore pile on dump assayed 4.4% Pb, 3.12 oz. Ag. **Ref:** 122, p. 156. 158. 163, p. 75.

**White Swan**

(see Snowstorm)

**White Tail (52)**

**Loc:** Near center SW¼ sec. 36, (32-36E), ½ mi. NE. of Covada post office. **Prop:** 1 claim. **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** 2 quartz veins in granodiorite, one 14 in. wide, the other smaller. **Dev:** 2 shafts, one 10 and one 8 ft. deep, open trenches. **Assays:** Sample from shaft 150 ft. W. of discovery shaft assayed 0.01 oz. Au, 1.20 oz. Ag. **Ref:** 122, p. 169. 163, p. 51.

**Yellowstone (107)**

**Loc:** Near center W½ sec. 30, (32-37E), Covada dist. **Ore:** Lead, zinc, silver. **Ore min:** Pyrite, galena, sphalerite. **Deposit:** 6- to 12-in. quartz vein in granodiorite carries fair proportions of ore minerals. **Dev:** 160-ft. adit. **Ref:** 122, p. 170.

**Zearn (108)**

**Loc:** Near center NE¼ sec. 31, (32-37E). **Ore:** Lead. **Ore min:** Pyrite, galena. **Gangue:** Quartzite, hornstone. **Deposit:** 1½-ft. lode of brecciated quartzite and hornstone with a considerable percentage of limonite and irregular grains and bunches of pyrite and galena. **Dev:** Small pit. **Ref:** 122, p. 171.

**KING COUNTY****Aces Up (16)**

(see under silver)

**Anderson (1)**

(see under iron)

**Apex (5)**

(see under gold)

**Baring**

(see Anderson under iron)

**Bear Basin (18)**

(see under silver)

**Bondholders Syndicate**

(see Apex under gold)

**Carmack (32)**

(see under gold)

**Cleopatra (17)**

(see under silver)

**Coney Basin (10)**

(see under gold)

**Copper Chief (29)**

(see under copper)

**Copper Plate**

(see Seattle-Cascade under silver)

**Damon and Pythias (6)**

(see under gold)

**Dawson (11)**

**Loc:** NE¼ sec. 18, (25-11E), on a tributary to Miller R. **Access:** 5½ mi. by road to railroad at Berlin. **Ore:** Lead, zinc, silver, gold, copper. **Ore min:** Galena, sphalerite, chalcopryrite, arsenopyrite, pyrite. **Deposit:** Strong vein of heavy sulfides in 12-ft. leached zone. **Dev:** 600 ft. of drift. **Assays:** 0.4 to 4.06 oz. Au, 4.0 to 30.0 oz. Ag, 3.5% to 41.0% Pb, nil to 3.12% Cu. **Ref:** 147, p. 184.

**Dutch Miller (28)**

(see under copper)

**Ellis (26)**

**Loc:** N. side of Mt. Si, 3½ mi. from North Bend. **Ore:** Lead. **Ref:** 63, p. 42.

**Galena Chief**

**Loc:** Snoqualmie dist. **Prop:** 1 claim. **Owner:** R. L. Blackburn (1892). **Ore:** Lead. **Ore min:** Galena. **Gangue:** Quartz. **Assays:** \$18 to \$140 per ton. **Ref:** 13, p. 167.

**Goat Mountain (23)**

**Loc:** N½ sec. 31, (25-10E), on Sunday Cr., on W. side of Goat Mtn., 1 mi. S. of Sunday Lk., Buena Vista dist. **Elev:** 3,300 to 3,900 ft. **Prop:** 15 claims. **Owner:** Robert Prufer, North Bend, Wash., and George Wagner, Seattle, Wash. (1944-1952). **Ore:** Lead, copper, zinc, gold, silver, molybdenum. **Ore min:** Pyrite, chalcopryrite, arsenopyrite, galena, sphalerite, molybdenite. **Deposit:** A shear zone in granodiorite 35 ft. wide and traceable for about 600 ft. contains stringers of mineralized quartz, most of which are only a few in. wide. **Dev:** 8 open cuts. **Improv:** Cabin, blacksmith shop (1951). **Assays:** 17 samples showed tr. to 0.16 oz. Au, 0.94 to 50.40 oz. Ag, 0.5% to 47.88% Zn, nil to 11.82% Pb, nil to 6.54% Cu. The av. is 0.08 oz. Au, 15.48 oz. Ag, 9.35% Zn, 7.08% Pb, 1.63% Cu. 6 samples showed nil to 3.24% Mo, and the av. was 0.81% Mo. **Ref:** 11-A, pp. 202-204. 158.

**Guye (30)**

(see under iron)

**Hawkeye**

(see under gold)

**Ingersoll**

**Loc:** Snoqualmie dist. **Prop:** 1 claim. **Owner:** R. L. Blackburn. **Ore:** Lead. **Ore min:** Galena. **Gangue:** Quartz. **Assays:** \$18 to \$140 per ton. **Ref:** 13, p. 167.

**Jack Pot (24)**

(see under zinc)

**Katie**

**Loc:** Miller R. dist. **Ore:** Lead, copper. **Ref:** 63, p. 38.

**King and Kinney (12)**

(see under copper)

**Kinney**

(see King and Kinney under copper)

**Last Chance (8)**

(see under gold)

**Lennox (22)**

(see under gold)

**Lone Star (9)**

(see under gold)

**Lost Lode (25)**

(see under molybdenum)

**Lynn (13)**

(see under copper)

**Mohawk (4)**

**Loc:** Sec. 27, (26-10E), on Money Cr. **Ore:** Lead, zinc. **Ref:** 158.

**Mt. Logan**

(see Guye under iron)

**Mount Phelps (20)**

(see under zinc)

**Mount Si (27)**

**Loc:** N. side of Mt. Si, 3½ mi. from North Bend, Snoqualmie dist. **Prop:** 2 claims. **Owner:** Fred Ellis and Albert Kelly. **Ore:** Lead. **Ore min:** Galena. **Deposit:** 16-in. streak of sulfides. **Dev:** 70-ft. adit. **Assays:** As high as \$20. **Ref:** 63, p. 41.

**Neptune (7)**

(see under gold)

**Philippi Lake (21)**

**Loc:** Sec. 5, (25-10E), Buena Vista dist. **Owner:** Philippi Lake Mining Co., Seattle, Wash. (1951). **Ore:** Lead, zinc. **Ref:** 150, p. 38.

**Pythias**

(see Damon and Pythias under gold)

**Salmon Creek (2)**

(see under gold)

**Seattle-Cascade (14)**

(see under silver)

**Seven-Twenty**

**Loc:** Snoqualmie dist. **Prop:** 1 claim. **Owner:** R. L. Blackburn (1892). **Ore:** Lead. **Ore min:** Galena. **Gangue:** Quartz. **Assays:** \$18 to \$140 per ton. **Ref:** 13, p. 167.

**Silver Dollar and Copper Plate**

(see Seattle-Cascade under silver)

**Silver Star (19)**

(see under silver)

**Sockless Jerry**

(see Last Chance under gold)

**Solomon (31)**

(see under gold)

**Summit**

(see Guye under iron)

**Three S Gulch (15)**

(see under zinc)

**Treasury Lead (3)**

**Loc:** Sec. 10, (26-10E), about 1 mi. S. of Baring, on Index Cr. **Prop:** 80 acres patented land. **Owner:** William R. Anderson, Baring, Wash. (1943). **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite. **Deposit:** Small fractures in granodiorite mineralized in spots with galena and sphalerite. **Dev:** 80-ft. adit, several open cuts. **Ref:** 157.

**Triple S**

(see Seattle-Cascade under silver)

**Triune**

(see under gold)

**KITTITAS COUNTY****Brown Bear**

(see under gold)

**Camp Creek (6)**

(see under silver)

**Cascade**

(see under gold)

**Cascade Mining (2)**

(see under copper)

**Esther and Louisa (4)**

(see under silver)

**Good Luck (3)**

**Loc:** Sec. 27, (23-12E), on Gold Cr. near Snoqualmie Pass. **Ore:** Lead, silver. **Ref:** 58, p. 26. 63, p. 61.

**Granite King (1)**

(see under silver)

**Grizzly Bear**

(see under gold)

**Majestic**

(see under gold)

**Mildred**

(see under copper)

**Ruby King**

(see under gold)

**Silver Dump (5)**

(see under silver)

**Standard**

(see under gold)

**Twin**

(see under gold)

**LEWIS COUNTY****Eliza (3)**

**Loc:** On Mineral Cr. **Owner:** Mineral Creek Mining Co. (1897). **Ore:** Lead. **Ore min:** Galena. **Dev:** 100-ft. adit. **Ref:** 63, p. 116.

**Goldie (4)**

**Loc:** On Mineral Cr. **Owner:** Mineral Creek Mining Co. (1897). **Ore:** Lead. **Ore min:** Galena. **Ref:** 63, p. 116.

**Mineral Creek (1)**

(see under zinc)

**Waterfall (2)**

(see under gold)

**LINCOLN COUNTY****Crystal (1)**

**Loc:** 1,100 ft. SE. of the W. ¼ cor. sec. 21, (28-36E). **Elev:** 1,610 ft. **Access:** ¼ mi. N. of State Highway No. 22 on a poor road. **Owner:** Crystal City Mining Co., Spokane, Wash. (1955—). Crystal Mining Co. (1902). New Crystal Mining Co. (1918-1922). Lincoln Mining & Milling Co. (1934). W. F. Pierce, Miles, Wash. (1940-1944). **Ore:** Lead, silver, copper, tungsten. **Ore min:** Galena, pyrrhotite, chalcopyrite, pyrite, sphalerite, native silver. **Gangue:** Tremolite, kaolin. **Deposit:** Small replacement bodies in dolomite near its contact with granite. Chalcopyrite and pyrite also disseminated in the wall rock near the ore bodies. **Dev:** 200-ft. adit, 3 shafts, 150 ft. of drifts. **Assays:** \$40 Ag, Pb. **Ref:** 7-A, p. 9. 11, p. 27. 88, p. 22. 98, 1920-1926. 112, p. 193. 158.

**Egypt (4)**

**Loc:** At foot of Pitney Butte. **Owner:** Charles Grutt, Davenport, Wash. (1897). **Ore:** Lead. **Ore min:** Galena. **Dev:** 120-ft. crosscut. **Ref:** 63, pp. 115-116.

**Elkhorn (7)**

**Loc:** 1 mi. S. of Iron Crown property in Mill Canyon about 10 mi. SE. of Pitney Butte. **Owner:** C. L. Young, W. K. Snyder, C. G. Snyder, G. E. Brown, J. T. Young (1897). **Ore:** Lead. **Ore min:** Galena. **Dev:** 40-ft. crosscut. **Ref:** 63, p. 116.

**Fouress (5)**

(see under zinc)

**John L. (2)**

**Loc:** Near the site of Fort Spokane. **Owner:** Col. William Ridpath (1897). **Ore:** Lead. **Ore min:** Galena. **Dev:** 125-ft. shaft, an adit. **Assays:** A sample shipment netted \$135. **Ref:** 158.

**Lincoln (3)**

(see under copper)

**Pitney Butte**

(see Fouress under zinc)

**Silver Queen**

(see under silver)

**Valley View (6)**

(see under zinc)

**OKANOGAN COUNTY****Alta**

(see Chilson)

**American Rand**

(see Spokane under gold)

**Anchor (125)**

(see under silver)

**Andy O.**

(see Andy O'Neil under silver)

**Andy O'Neil (118)**

(see under silver)

**Anna (123)**

(see under silver)

**Antimony Queen (15)**

(see under antimony)

**Apache (126)**

(see under silver)

**Apex (92)**

(see under copper)

**Arizona**

(see Horn Silver under silver)

**Arlington (84)**

(see under silver)

**Atkins (99)**

**Loc:** Near SW. cor. sec. 12, (34-31E), Park City dist. **Prop:** Several claims. **Owner:** W. A. Atkins (1913). **Ore:** Lead, silver, zinc. **Ore min:** Galena, sphalerite, pyrite. **Deposit:** 3-ft. quartz vein bedded between schist and argillite contains a 1-ft. layer irregularly banded with ore minerals. **Dev:** Shaft said to be 40 ft. deep. **Assays:** Picked sample from 1-ft. band assayed 2 oz. Ag, tr. Au. Contained est. 20% of galena and sphalerite together. **Ref:** 46, p. 180. 122, p. 102.

**Ben Harrison**

(see Apex under copper)

**Billy Goat (3)**

(see under copper)

**Black Warrior**

(see under gold)

**Blue Grouse (75)**

(see also Peacock under silver)

**Loc:** NE¼ sec. 30, (35-25E), Conconully dist. **Prop:** 1 claim of Peacock mine group. **Owner:** Peacock Mountain Mining & Milling Co. (1924). **Ore:** Lead, copper, silver. **Ore min:** Galena, malachite. **Gangue:** Quartz. **Deposit:** Vein in schist and gneiss consists of sheared quartz and country rock 10 ft. wide. Vein sparsely mineralized and traceable only a short distance. **Dev:** Shallow tunnel. **Ref:** 58, p. 9. 75, pp. 29, 31. 98, 1925, p. 1827. 112, p. 197.

**Bolinger (16)**

(see under gold)

**Bridgeport**

(see under silver)

**Brunswick**

**Loc:** On Mineral Hill, Conconully dist. **Prop:** 1 claim. **Ore:** Lead, silver. **Ore min:** Galena. **Deposit:** 20-in. quartz vein carrying galena. **Dev:** 120-ft. drift. **Assays:** Av. assay of ore on dump gave 45% Pb, 225 oz. Ag. **Ref:** 12, pp. 60-61. 13, p. 97.

**Buckeye (50)**

(see under copper)

**Bunker Hill**

(see Silver King)

**Butcher Boy (93)**

(see under gold)

**Caaba**

(see Kaaba)

**Cabin (127)**

**Loc:** Near NE. cor. sec. 27, (31-30E), about 2 mi. W. of Nespelem. **Owner:** Great Metals Mining & Milling Co. (1915-1926). **Ore:** Lead, zinc, silver, gold. **Ore min:** Galena, sphalerite, pyrite. **Deposit:** Mineralized quartz veinlets from less than 1 to 4 in. wide along fracture zones in altered granite. Granite sparsely mineralized. **Dev:** 200-ft. shaft, 15-ft. crosscut. **Ref:** 46, p. 197. 58, p. 11. 98, 1922-1926. 112, p. 181. 122, pp. 77-78. 129, pp. 211-212.

**California (19)**

(see under copper)

**Carl Frederick (54)**

(see under silver)

**Carlquist (89)**

(see under antimony)

**Carr (4)**

(see under copper)

**Castle Creek (101)**

(see also Mountain Boy, Snowshoe, Summit)

**Loc:** Secs. 1, 11, and 12, (33-31E), Park City dist. **Prop:** 3 claims: Summit, Mountain Boy, Snowshoe. **Owner:** Tweedmont Mining & Milling Co. (1921). Colville Mining & Smelting Co. (1907). Park City Mining Co. (1908). Castle Creek Mining Co. (1914-1918). **Ore:** Lead, silver, gold, copper, zinc. **Ore min:** Galena, sphalerite, chalcopryrite, pyrite, marcasite, tetrahedrite. **Deposit:** Lenticular quartz masses containing scattered patches of ore in a series of metamorphic rocks intruded by granitic dikes. **Prod:** 1906, 1918, 1920. **Ref:** 7, pp. 205-207. 58, p. 12. 97, 1919, p. 494; 1921, p. 427. 98, 1925, p. 1808. 112, p. 172. 116, no. 12, 1907, p. 16. 122, p. 93. 129, p. 189.

**Catherine (20)**  
(see under silver)

**Central**  
(see Park and Central)

**Central (Trinidad) (55)**  
(see under silver)

**Chicago (47)**  
(see under gold)

**Chief Sunshine (57)**  
(see under silver)

**Chilson (Alta)**  
**Loc:** S. of Palmer Mtn. on Chilson's Hill. **Prop:** 4 claims: Alta, Santa Anna, Jumbo, Sampson. **Owner:** George Yancey and the Chilson brothers (1892). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** 6-ft. vein. **Dev:** 25-ft. shaft, 15-ft. shaft. **Assays:** 42% to 60% Pb, 87 to 90 oz. Ag, tr. Au. **Ref:** 13, p. 123.

**Cleopatra**  
(see under gold)

**Continental**  
(see Mazama Queen under gold)

**Copper King (61)**  
**Loc:** Near center sec. 31, (36-25E), adjoins Salmon River group on NW. **Access:** N. of Conconully by road. **Prop:** 1 claim. **Ore:** Lead, silver, copper, zinc. **Ore min:** Galena, sphalerite, chalcopryrite, pyrite. **Deposit:** 7-ft. quartz vein contains a mineralized zone 3 ft. wide. Quartz is honeycombed at surface but carries sulfides at depths of a few feet. **Dev:** 2 drifts, 100 ft. and 50 ft. long on N. and S. sides of a small gulch. **Assays:** Said to run about \$38 Ag, Pb, Cu. **Ref:** 46, p. 213. 75, p. 26.

**Copper Zone**  
(see under copper)

**Cornwall (6)**  
**Loc:** Sec. 24, (37-17E), 1½ mi. S. of Harts Pass. **Access:** Trail from Harts Pass. **Prop:** 1 claim. **Owner:** Charles Willman, Winthrop, Wash. (1951). **Ore:** Lead, zinc. **Ore min:** Galena, sphalerite. **Deposit:** Narrow vein. **Dev:** Short adit. **Ref:** 158.

**Crescent**  
(see Triune under gold)

**Crystal Butte (96)**  
(see under gold)

**Curlew (21)**  
(see under gold)

**Daisy (7)**  
(see under gold)

**Delate (91)**  
(see under copper)

**Denver City**  
(see Leadville under gold)

**Dixie Queen**  
(see Antimony Queen under antimony)

**Double Eagle**  
(see Dry Bone)

**Dry Bone (Duke of Windsor, Double Eagle)**  
**Loc:** Park City dist. **Access:** Road. **Prop:** 4 claims: Dry Bone Silver Lode Nos. 1 to 3, Dry Bone Silver Lode Annex. **Owner:** Duke of Windsor Mines Corp. (1941). **Ore:** Lead, zinc, silver, gold. **Ore min:** Said to be chromite on the property.

**Deposit:** Said to be a "contact" vein intersected by a fissure vein. Vein said to have an est. length of 4,500 ft. and an av. width of 8 ft. **Dev:** 130-ft. adit; 2 shafts, 60 and 80 ft. deep. **Assays:** Said to run 14% Pb, 10% Zn, 27 to 93 oz. Ag, \$3 Au. **Ref:** 46, p. 191. 158.

**Duke of Windsor**  
(see Dry Bone)

**Eagle (22)**  
**Loc:** NE¼ sec. 23, (40-25E), Nighthawk dist. **Prop:** 1 claim. **Owner:** Eagle Mining Co. (1892). **Ore:** Lead, silver. **Ore min:** Galena. **Deposit:** 12-ft. quartz vein. **Dev:** 110-ft. adit. **Assays:** 10% to 12% Pb, 18 to 310 oz. Ag. **Ref:** 12, p. 67. 13, p. 109.

**Eloise (23)**  
(see under silver)

**Empire (39)**  
(see under gold)

**Esther (62)**  
**Loc:** SW¼NE¼ sec. 31, (36-25E), NE. of the Copper King property. **Elev:** 3,250 ft. **Access:** N. of Conconully by road. **Prop:** 1 claim. **Ore:** Lead, copper, zinc, silver. **Ore min:** Galena, chalcopryrite, sphalerite, pyrite. **Deposit:** Quartz vein 1 to 3 ft. wide in mica schist. Sparsely mineralized. **Dev:** 74-ft. adit. **Ref:** 46, p. 202. 58, p. 20. 75, p. 26.

**Eureka (102)**  
**Loc:** SE¼NE¼ sec. 12, (33-31E), Park City dist. **Access:** 1 mi. by trail from Park City road. **Prop:** 1 claim: Eureka, part of Mountain Boy group. **Ore:** Lead, silver, copper. **Ore min:** Galena, pyrite, chalcopryrite. **Gangue:** Quartz, talc. **Deposit:** Mineralized shear zone in granite. One lens of quartz and ore minerals in the zone is 18 in. thick at center and 10 ft. or more in dia. **Dev:** 200-ft. adit. **Assays:** A selected sample of as nearly pure galena as could be found assayed 41.4% Pb, 150.6 oz. Ag. **Ref:** 122, p. 95.

**Eureka (32)**  
**Loc:** Secs. 17 and 18, (40-26E), Nighthawk dist. **Prop:** 2 claims: Ellamaham, San Francisco, Kelley, California, Pontiac, Utica, California Cross Course, Big Tyee. **Owner:** John McDonald and H. F. Smith (1892). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** Quartz veins 3 to 7 ft. wide. One is traceable on surface for 1,500 ft. **Dev:** 120-ft. shaft, 110-ft. shaft, 50-ft. shaft, 10-ft. shaft, 30-ft. shaft, and two 20-ft. shafts. **Assays:** Av. of 8 assays shows 7.15% Pb, 17.71 oz. Ag, tr. Au. **Ref:** 12, p. 66. 13, p. 108.

**Eureka (58)**  
**Loc:** On W. slope of Mineral Hill, SE. extension of the Lone Star vein, Conconully dist. **Owner:** Richard Malone and George Gubser (1892). **Ore:** Lead, silver, copper. **Ore min:** Galena, chalcopryrite, pyrite. **Deposit:** 4-ft. quartz vein. **Dev:** 65-ft. shaft. **Assays:** Ore from shaft assayed 13% Pb, 80 oz. Ag. **Ref:** 12, p. 61. 13, p. 96.

**Evening (119)**  
(see under silver)

**Fairview**  
**Loc:** Northern extension of the Poorman prospect, Conconully dist. **Owner:** Thomas Donan et al. (1890). **Ore:** Lead, silver, gold. **Ore min:** Galena, pyrite. **Deposit:** 4-ft. quartz vein. **Dev:** 100-ft. adit. **Assays:** Old assays show tr. Au, 31 to 40 oz. Ag, 18% to 33% Pb. **Ref:** 12, p. 53. 13, p. 84.

**Favorite (24)**  
**Loc:** Sec. 13, (40-25E), on E. side of the valley a short distance S. of the Nighthawk property. **Owner:** Favorite Gold

& Copper Mining Co. (1907-1926). **Ore:** Lead, silver, copper, gold. **Deposit:** Country rock is a light-gray granite. **Dev:** 850-ft. adit. **Ref:** 33, 1907, p. 559. 58, p. 21. 98, 1918-1926. 154, p. 90.

#### Ferris R. Ford

(see Wolframite under tungsten)

#### First Thought (76)

(see under silver)

#### Fluorspar

(see Tonasket under copper)

#### Four Metals (25)

**Loc:** Secs. 22 and 23, (40-25E), on S. slope of Little Chopaka Mtn., on Similkameen R. **Elev:** 1,800 ft. **Access:** 1 mi. by road from railroad at Nighthawk. **Prop:** 11 claims, including: Silver Queen, Shamrock, Mary, Chopaka, Daniels, Alice, Ollie. **Owner:** Border Lord Mining Corp., Seattle, Wash., has 50-yr. lease (1952) from James Stack, Oroville, Wash., and John Hancock, Okanogan, Wash. (1938-1952). **Four Metals Mining Co.** (1919-1922). **Ore:** Lead, silver, copper, zinc, tungsten. **Ore min:** Galena, chalcopryrite, pyrite, sphalerite, scheelite, bornite, molybdenite. **Gangue:** Quartz, garnet, epidote. **Deposit:** Mineralized quartz veins from a fraction of an inch to 12 ft. wide (av. 4 or 5 ft. wide) exposed for length of several thousand ft. and depth of 250 ft. in granodiorite, limestone, quartzite, argillite. Sulfides are in bands throughout the vein. Scheelite is concentrated in vein near its walls. **Dev:** 2 shafts, 110 and 150 ft. deep; 3 adits, 340, 235, and 140 ft. long; and several open cuts. **Assays:** Est. to av. \$8 Pb, Zn, Cu, Ag. Portions of vein 1½ to 2 ft. thick and 10 ft. long est. to carry 2% WO. **Prod:** 20 or more cars of high-grade ore and concentrates in period 1918-1921, 600 tons milled in 1939. **Ref:** 37, p. 34. 97, 1919, 1921, 1922, 1940. 98, 1922-1926. 129, pp. 233-236. 141, p. 22. 158.

#### Frankie Boy (60)

(see under silver)

#### General Miles (111)

**Loc:** N½ sec. 13, (33-31E). **Ore:** Lead, silver. **Ore min:** Argentiferous galena. **Deposit:** Geologic relations of the veins similar to those of the Mountain Boy group. **Ref:** 122, p. 96.

#### Gold Crown

(see Spokane under gold)

#### Gold Hill (41)

(see under gold)

#### Golden Zone (18)

(see under gold)

#### Goodenuff (117)

(see under silver)

#### Gould & Curry (128)

**Loc:** Near N. ¼ cor. sec. 27, (31-30E), on SE. spur of Mineral Hill. **Access:** 3 mi. W. of Nespelem, road for at least 2 mi. **Ore:** Lead, silver, gold. **Ore min:** Galena, sphalerite, pyrite. **Gangue:** Quartz. **Deposit:** 3- to 15-in. lode in granite. Lode largely quartz but 50% sulfides in places. Wall rock is sericitized 1 ft. on each side of vein and is slightly mineralized. **Dev:** 40-ft. adit and 130-ft. adit with short crosscuts aggregate 200 ft. **Assays:** Sample somewhat richer in Pb than av. from 50-ton ore pile on dump showed \$0.40 Au, 30.18 oz. Ag, 20% Pb. **Ref:** 46, pp. 195-196. 122, pp. 76-77.

#### Grand Summit

(see Palmer Summit under gold)

#### Grandview

(see Leadville under gold)

#### Great Divide (120)

(see under silver)

#### Great Metals

(see Anchor under silver)

#### Great Western (115)

**Loc:** NE¼ sec. 4, (31-30E), 5 mi. NW. of Nespelem. **Access:** A short distance N. of the Nespelem-Omak road. **Prop:** 3 claims. **Owner:** Mr. Ecklund, Nespelem, Wash. (1938). **Ore:** Lead, zinc, silver. **Ore min:** Galena, sphalerite, magnetite. **Gangue:** Rhodonite, vesuvianite, epidote, garnet. **Deposit:** Small body of sedimentary rock surrounded and metamorphosed by granite. **Dev:** Shaft more than 40 ft. deep from which levels are said to have been run. **Assays:** Sorted ore on dump roughly est. to contain 6% of sphalerite and galena together. **Ref:** 46, pp. 198-199. 88, p. 34. 122, pp. 81-82.

#### Grover Cleveland

**Loc:** On Mineral Hill, Conconully dist. **Ore:** Lead, silver, copper. **Ore min:** Galena. **Deposit:** 4-ft. vein of galena ore. **Dev:** 2 shafts, 30 ft. and 50 ft. deep. **Assays:** Av. assays from bottom of the 2 shafts were 50 oz. Ag, 60% Pb, 5% Cu. **Ref:** 12, p. 60. 13, p. 97.

#### Grubscher

(see Gubser)

#### Gubser (Grubscher) (63)

**Loc:** Near SW. cor. sec. 31, (36-25E), on W. side of Salmon Cr. 1½ mi. from Conconully. **Elev:** 2,400 ft. **Owner:** Sunny Peak Mining Co., Spokane, Wash. (1948—). Lone Star Consolidated Mining Co. (1929). American Mines & Smelter Corp. (1929). **Ore:** Lead, zinc, copper, tungsten, gold, silver. **Ore min:** Pyrite, galena, sphalerite, chalcopryrite, scheelite. **Gangue:** Quartz. **Deposit:** 2 shear zones cut by the tunnel, one at 370 ft. from the portal, another at 670 ft. Sparsely mineralized quartz veins in the shear zones are from 8 in. to 2 ft. wide. **Dev:** 900-ft. adit and two 50-ft. drifts. **Ref:** 37, p. 44. 69, p. 15. 106, 12/3/28, p. 19; 8/2/29. 158.

#### Hanford (103)

**Loc:** Near SW. cor. SE¼ sec. 12, (33-31E), Park City dist. **Owner:** Judge Hanford (1913). **Ore:** Lead, silver. **Ore min:** Galena, pyrite. **Deposit:** Porous iron-stained quartz vein 2 or 3 ft. wide in argillite carries some ore minerals. **Dev:** Inclined shaft. **Assays:** Picked sample from dump showing 30% or more galena assayed 25.9% Pb, 20.48 oz. Ag. **Ref:** 122, p. 96.

#### Hanks (2)

(see under copper)

#### Hargrove

(see Silver King)

#### Hatfield

(see Wolframite under tungsten)

#### Heath (12)

**Loc:** Center S½ sec. 18, (33-22E), near Rattlesnake property. **Ore:** Lead. **Ore min:** Pyrite, arsenopyrite, galena. **Deposit:** Quartz vein 0 to 6 in. wide in a 6- to 24-in. band of gouge in altered volcanic rock. **Ref:** 158.

#### Hercules (112)

**Loc:** NE¼ sec. 14, (33-31E), Park City dist. **Elev:** 3,600 ft. **Prop:** 1 of 4 patented claims in the Ramore group. **Owner:** Ramore Mining Co. (1908-1919). Park City Mining Co. (1908-1918). **Ore:** Lead, silver, copper, zinc. **Ore min:** Galena, sphalerite, chalcopryrite, pyrite, pyrrhotite, tetrahedrite. **Gangue:**



Quartz, fluorite. **Deposit:** 5-ft. shear zone along contact of granite and metamorphic series. Ore minerals disseminated in the zone. **Dev:** 430-ft. adit, 180-ft. drift. **Prod:** No large shipments reported. **Ref:** 7, pp. 207-208. 33, 1908, p. 1103. 98, 1918, p. 119. 112, p. 198. 114, no. 5, 1909, pp. 74-75. 122, p. 98.

#### Hiawatha (43)

(see under gold)

#### Hidden Treasure (Sunshine) (17)

(see under gold)

#### Hilo

(see St. Paul under silver)

#### Homestake (64)

**Loc:** SW¼ sec. 31, (36-25E), a few hundred ft. SW. of Salmon River property. **Elev:** 2,800 ft. **Access:** N. of Conconully by road. **Prop:** 1 patented claim. **Owner:** Salmon River Mining & Smelting Co. (1902-1915). **Ore:** Lead, silver, gold. **Ore min:** Galena, arsenopyrite. **Deposit:** 11-ft. quartz vein. **Dev:** 175-ft. adit, 42-ft. crosscut, 29-ft. shaft. **Assays:** 18 to 56 oz. Ag, 32% to 36% Pb, tr. to 2 oz. Au. 100 tons of ore sold prior to 1902 returned \$1,500 in Ag and Pb. **Prod:** Attempts to concentrate ore in an old mill on Salmon Cr. failed. 400 tons of ore produced prior to 1902. **Ref:** 12, p. 56. 13, p. 90. 63, p. 93. 75, pp. 26-27. 88, p. 33.

#### Horn Silver (35)

(see under silver)

#### Idaho

(see under silver)

#### Independence

(see under silver)

#### Independent (113)

**Loc:** Near center N½ sec. 23, (33-31E), Park City dist. **Owner:** J. B. Cook (1953). **Ore:** Lead, zinc, silver. **Ore min:** Pyrite, galena, sphalerite. **Gangue:** Quartz, sheared argillite. **Deposit:** 5-ft. shear zone in argillite silicified and sparsely mineralized. Granite crops out not far from workings. Sulfides occur as disseminations and bunches up to 2 ft. in dia. **Dev:** 60-ft. adit and large open pit or glory hole. **Assays:** Representative sample of one of larger bunches assayed 1.32 oz. Ag. **Ref:** 122, pp. 99-100.

#### John Judge

(see Leadville under gold)

#### Josie

(see Hiawatha under gold)

#### Julia (38)

**Loc:** SW¼ sec. 26, (40-25E), on E. side of Similkameen R., Nighthawk dist. **Owner:** John McDonald and H. F. Smith (1892). **Ore:** Lead, silver, gold. **Ore min:** Galena. **Deposit:** 7-ft. quartz vein in mica schist. **Dev:** 150-ft. shaft, 118-ft. adit. **Assays:** Samples from dump assayed \$100 to \$150 per ton. **Ref:** 12, p. 66. 13, p. 107. 63, p. 101.

#### Jupiter

(see Tip Top under copper)

#### Jupiter

**Loc:** Conconully dist. **Owner:** Viola Copper-Gold Mining Co. (1906-1918). **Ore:** Lead. **Ref:** 33, 1907, p. 1145; 1908, p. 1401. 98, 1918, p. 145. 105, no. 6, 1906, p. 469.

#### Kaaba (Caaba, Kaaba-Texas) (26)

**Loc:** Secs. 13, 14, and 23, (40-25E). **Elev:** 1,500 ft. **Access:** 1 mi. S. of Nighthawk on macadam road. **Prop:** 27 claims, 7 of which are patented. Also 3 patented lots. **Owner:** Kaaba

Silver-Lead Mines, Inc. (1948-1951). Mines Operating Co. (1918). Kaaba Mines Co. (1921-1926). General Metals Co., Ltd. (1929-1931). Kaaba-Texas Mining Co. (1938-1947). **Ore:** Lead, silver, zinc, copper, gold, tungsten. **Ore min:** Galena, chalcopryrite, sphalerite, molybdenite, pyrite, scheelite, marcasite. **Gangue:** Quartz, calcite, gouge. **Deposit:** Persistent but low-grade quartz vein av. 10 ft. in width along a lamprophyre-granite contact. Ore minerals banded along footwall and bunched on hanging wall. **Dev:** Inclined shaft 300 ft. long with 1,100 ft. of drifts on 4 levels, over half on 3rd level. **Improv:** 150-ton flotation mill (1952). **Assays:** Ore milled from 1943 to 1946 av. \$4.03 gross. Av. assay is 1.2% Pb, 0.5% Zn, 0.1% Cu, 2.25 oz. Ag. **Prod:** 1915, 1918, 1920, 1929. 95,045 tons of ore milled from 1943 to 1949, 1950. **Ref:** 12, p. 66. 13, p. 108. 37, pp. 34-35. 46, pp. 216-219. 54, p. 2. 63, p. 101. 68, p. 11. 97, 1915, 1918, 1920, 1929, 1944-1949. 98, 1920-1926. 106, 7/2/31; 7/21/32. 108, 6/42, p. 28. 112, p. 192. 129, pp. 228-231. 154, p. 93. 158.

#### Kaaba-Texas

(see Kaaba)

#### Kankakee (121)

(see under copper)

#### Kansas (77)

(see under copper)

#### Key (65)

(see under silver)

#### Kimberly (46)

**Loc:** Sec. 11, (39-26E), Wannacut Lk. dist., ½ mi. S. of the old post office at Golden. **Owner:** Walter A. Hart, Oroville, Wash. (1952). Kimberly Mining Co. (1915). **Ore:** Lead, silver, gold, copper, zinc. **Ore min:** Abundant galena, sphalerite, pyrite, chalcopryrite. **Deposit:** Quartz vein along contact of altered diorite and slate. Ore occurs as lenses in the vein as much as 40 to 50 ft. long and 1 to 5 ft. wide. **Dev:** 140-ft. inclined shaft with drifts on the 60-, 80-, and 100-ft. levels. **Assays:** Better ore said to assay 10% to 20% Pb, \$6 to \$15 Au, 60 to 70 oz. Ag. **Prod:** Has produced. **Ref:** 54, pp. 3, 22. 154, pp. 96-97. 158.

#### King Solomon

**Loc:** Okanogan County. **Ore:** Lead. **Prod:** 1924. **Ref:** 97, 1924, p. 293.

#### Lady of the Lake (73)

(see under silver)

#### Lakeview

(see Prize)

#### Last Chance (78)

(see under silver)

#### Lead Horse (5)

**Loc:** Sec. 16, (38-20E), on S. side of Billy Goat Peak. **Elev:** 6,000 ft. **Access:** 3 mi. by trail from Eightmile Cr. road. **Prop:** 1 claim. **Owner:** Fred Floyd, Twisp, Wash. (1952). Mr. Kenney (1943). **Ore:** Lead, copper. **Ore min:** Galena, cerussite, anglesite, malachite. **Gangue:** Barite. **Deposit:** A bleached zone in altered volcanic rock extends intermittently for 1,500 ft. 2 faults along the W. end of the zone are 6 to 8 in. wide and contain a few irregular masses of galena. **Dev:** Open cut. **Ref:** 158.

#### Leadville (51)

(see under gold)

#### Leonora (79)

**Loc:** Sec. 30, (35-25E), on S. slope of Peacock Hill, Conconully dist. **Prop:** 1 claim. **Owner:** J. T. McDonald and J. C.

Robinson, Ellensburg, Wash. (1892). **Ore:** Lead, silver. **Ore min:** Galena, stephanite, pyrite. **Deposit:** 5-ft. vein with a 4-in. paystreak. **Dev:** 80-ft. shaft, surface trenching. **Assays:** Old assays show 17% to 25% Pb, as much as 350 oz. Ag. **Ref:** 12, p. 53. 13, p. 82.

### Little Chopaka (Six Eagles) (27)

**Loc:** NE¼ sec. 23, (40-25E), on W. side of Similkameen Valley, 1 mi. S. of Nighthawk. **Prop:** 11 unpatented claims. **Owner:** Hope Mining Co. (1919). Little Chopaka Mining Co. **Ore:** Lead, silver, gold. **Ore min:** Pyrite, chalcopryrite, sphalerite, galena. **Gangue:** Quartz, sericite. **Deposit:** 1- to 3-ft. quartz vein occupies a fault zone in granite. **Dev:** 2,000-ft. adit, 200-ft. shaft. **Assays:** Ore said to assay \$5 Au, Ag, Pb. **Ref:** 154, pp. 90-91.

### Lone Pine (33)

(see under silver)

### Lone Star (Star) (59)

(see also Gubser under lead, and Mineral Hill under silver)

**Loc:** NE¼ sec. 36, (36-24E), on W. side of Salmon Cr. **Access:** 1½ mi. N. of Conconully by road. **Prop:** Comprised of Jumbo, Golden Crown, Lone Star, Gubser, Mineral Hill properties (1929-1935). **Owner:** Chris Bernhart, Wallace, Idaho (1943-1947). Leased by T. D. French, Conconully, Wash. (1945). Syndicate Development Co. (1915). American Mines & Smelter Corp. (1929). Lone Star Consolidated Mining Co. (1929). British American Mines & Smelter Corp. (1935). Lone Star Mining & Development Co. (1931-1935). **Ore:** Lead, copper, gold, silver, zinc. **Ore min:** Chalcopryrite, pyrite, galena, stephanite. **Deposit:** Sparsely mineralized quartz veins 18 in. to 20 ft. wide in granite. **Dev:** Adit consisting of 125 ft. of crosscut and 290 ft. of drift. Also 185-ft. crosscut with 100 ft. of drifts, 375-ft. inclined shaft. **Assays:** 7 old assays show 30% to 65% Pb, 39.6 to 140 oz. Ag, 0.1 to 1.6 oz. Au. 7 samples from a 1½-ft. to 10-ft. width assayed in 1943 showed tr. to 0.005 oz. Au, 1.85 to 7.35 oz. Ag, 0.1% to 1.1% Zn, 0.1% to 0.6% Pb, and 0.01% WO<sub>3</sub>. **Prod:** Reportedly shipped a carload of ore in 1913. Produced 1943. **Ref:** 12, p. 55. 13, p. 89. 50, p. 7. 63, p. 93. 75, p. 27. 97, 1913, p. 798. 104, 11/15/35, p. 23. 105, no. 26, 1913, p. 1007. 106, 12/3/28, p. 19; 8/2/29; 5/21/31; 6/18/31. 130, p. 63. 157.

### Maquae

(see under gold)

### Marguerite (80)

(see under copper)

### Mazama Queen (8)

(see under gold)

### Mineral Hill (Washington Consolidated, Seven Devils) (66)

(see under silver)

### Minnehaha (67)

(see under silver)

### Mohawk

**Loc:** Sec. 31, (36-25E), on Mineral Hill N. of the Grover Cleveland property, Conconully dist. **Prop:** 1 claim. **Owner:** Conconully Mines, Inc., Yakima, Wash. (1954—). Henry Lawrence et al. (1892). **Ore:** Lead, silver, copper. **Ore min:** Galena, chalcopryrite, pyrite. **Deposit:** Quartz vein 1½ to 3 ft. wide. **Dev:** 200-ft. adit, 50-ft. adit. **Assays:** Av. assays along the vein show 5% to 7% Pb, 3.10% to 3.12% Cu, 62 to 65 oz. Ag. **Ref:** 12, p. 60. 13, p. 96. 63, p. 94.

### Molson

(see Poland China under gold)

### Monitor (68)

**Loc:** Near NW. cor. sec. 31, (36-25E), on E. side of Salmon Cr. N. of Key property, Conconully dist. **Elev:** 5,500 ft. **Owner:** Robert Hargrove, Conconully, Wash. (1892). **Ore:** Lead, silver, copper, zinc. **Ore min:** Galena, sphalerite, chalcopryrite, pyrite. **Gangue:** Quartz. **Deposit:** Vein in schist av. 2 ft. in width. Sparsely mineralized. **Dev:** 200-ft. adit, 50-ft. shaft. **Assays:** 30 to 35 oz. Ag, 17% to 18% Pb. **Ref:** 13, p. 94. 46, p. 208. 75, p. 27.

### Monterey (95)

(see under copper)

### Montgomery

(see Tonasket under copper)

### Mother Lode

(see Crystal Butte under gold)

### Mountain Boy (104)

(see also Castle Creek, Snowshoe, Summit, Three L's)

**Loc:** NW¼NW¼ sec. 12, (33-31E), on NW slope of Old Glory Mtn. **Elev:** 3,920 ft. **Access:** 1 mi. NE. of Park City by road. **Prop:** 1 claim: Mountain Boy, one of Mountain Boy group. **Owner:** Castle Creek Mining Co. (1918-1922). Colville Mining & Smelting Co. (1907). Park City Mining Co. (1908-1918). Tweedmont Mining & Milling Co. (1921). **Ore:** Lead, silver. **Ore min:** Galena, sphalerite, chalcopryrite, pyrite, tetrahedrite. **Gangue:** Quartz, calcite. **Deposit:** Mineralized quartz lenses ½ in. to 18 in. wide and 2 in. to 30 ft. long along planes of schistosity in shale and limestone. **Dev:** 4 adits, 2 on ore. One adit 155 ft. long. **Assays:** 4 or 5 carloads of ore shipped said to av. \$60 per ton, presumably Ag, Pb. **Prod:** 4 or 5 carloads reported. **Ref:** 7, p. 207. 33, 1908, p. 1103. 46, pp. 183-185. 97, 1907, p. 474; 1921, p. 427. 98, 1918-1925. 105, 1/5/07, p. 11. 116, no. 12, 1907, p. 16. 122, pp. 94-95. 129, pp. 189, 192.

### Multnomah (116)

(see under copper)

### Myrtle

(see St. Paul under silver)

### Nevada (81)

(see under silver)

### New Deal

(see Antimony Queen under antimony)

### Nighthawk (28)

**Loc:** Sec. 13, (40-25E) and sec. 18, (40-26E), on E. wall of Similkameen Valley, a few hundred yd. S. of the post office at Nighthawk. **Prop:** 65 unpatented claims. **Owner:** Nighthawk Mines, Inc., Chelan Wash. (1941). Nighthawk Mining Co. (1907-1909). Chloride Queen Mining Co. (1932-1934). **Ore:** Lead, silver. **Ore min:** Pyrite, galena. **Gangue:** Quartz. **Deposit:** Irregular mineralized bodies of quartz occur along the margins of a brecciated zone in granite. The zone is 100 ft. wide at one place. **Dev:** 1,770-ft. adit and several minor underground workings. **Prod:** Has produced. **Ref:** 58, p. 48. 114, no. 5, 1909. 154, pp. 89-90. 158.

### Number One (30)

**Loc:** Sec. 23, (40-25E), on S. face of Little Chopaka Mtn. W. of the Little Chopaka group, 1½ mi. S. of Nighthawk. **Prop:** Group of claims. **Ore:** Lead, silver, gold, copper. **Ore min:** Galena. **Deposit:** Quartz vein 3 to 12 ft. wide occupies a fault zone along the contact of granite with slate and conglomerate. **Dev:** 200-ft. adit; several shafts, deepest one (60 ft.) connects with the adit. **Assays:** Av. assay somewhat less than \$10 per ton. Ag content may increase to water table. **Ref:** 154, pp. 91-92.

**Okanogan Belle (69)**

(see under silver)

**Okanogan Free Gold (36)**

(see under gold)

**Olentangy (90)**

(see under gold)

**Opal**

(see under gold)

**Oversight (129)**

**Loc:** Near center N. line sec. 27, (31-30E), ½ mi. E. of Gould & Curry prospect, Nespelem dist. **Ore:** Lead, silver, gold. **Ore min:** Ore on dump very similar to that of Gould & Curry. **Deposit:** Vein said to be similar to Gould & Curry prospect. **Dev:** 40-ft. shaft, inaccessible 1913. **Ref:** 58, p. 52. 122, p. 78.

**Overtop**

(see Poland China under gold)

**Owasco**

(see Okanogan Free Gold under gold)

**Palmer Mountain Tunnel (42)**

(see under gold)

**Palmer Summit (48)**

(see under gold)

**Park and Central (105)**

**Loc:** Near SE¼ sec. 12, (33-31E), Park City dist. **Prop:** Several patented claims. **Ore:** Lead, silver. **Ore min:** Argenterous galena. **Deposit:** Geologic relations of the veins similar to those of the Mountain Boy group. **Ref:** 114, no. 5, 1909. 122, p. 96.

**Peacock (74)**

(see under silver)

**Peoria (14)**

(see under gold)

**Phil Sheridan**

(see Sheridan under silver)

**Pinnacle (52)**

(see under gold)

**Pittsburg (122)**

(see under silver)

**Poland China (88)**

(see under gold)

**Poorman (106)**

(see under zinc)

**Poorman**

**Loc:** Between Ruby and Peacock Mtns. Western extension of the Idaho claim. **Owner:** Thomas Donan, John Clunan, W. H. Singleton, and H. W. Fairweather (1892). **Ore:** Lead, silver, gold. **Ore min:** Galena, pyrite. **Deposit:** 4-ft. quartz vein with a 3-in. paystreak. **Dev:** 75 ft. of workings. **Assays:** 6 assays show tr. Au, 31 to 40 oz. Ag, 18% to 33% Pb. **Ref:** 12, p. 53. 13, p. 84.

**Premier**

(see under gold)

**Prize (Lakeview) (37)**

**Loc:** Near NW. cor. sec. 36, (40-25E), on E. side of the valley. **Elev:** 3,200 ft. **Access:** 3 mi. S. of Nighthawk. **Prop:** 12 unpatented claims. **Owner:** Prize Mining Co. (1905-1906). **Ore:** Lead, silver, gold, copper. **Ore min:** Galena, pyrite, chalcoppyrite, malachite, azurite, limonite. **Gangue:** Quartz. **Deposit:** 15-in. vein enclosed in greenstone and schist is com-

posed of quartz and intermixed fragments of country rock. **Dev:** 2 adits. **Prod:** 1906, 1913. **Ref:** 97, 1905, p. 336; 1906, p. 367; 1913. 114, no. 5, 1909. 154, pp. 93-94. 159, p. 136.

**Pyrargyrite**

(see Ruby under silver)

**Rainbow (49)**

(see under gold)

**Ramore (114)**

**Loc:** Near center sec. 14, (33-31E), 1,600 ft. NE. of Hercules mine, Park City dist. **Elev:** 3,950 ft. **Prop:** 1 patented claim of 4 in the Ramore group. **Owner:** Ramore Mining Co. (1909-1918). **Ore:** Lead, silver, gold, copper, zinc. **Ore min:** Sphalerite, galena, pyrite, chalcoppyrite, pyrrhotite, tetrahedrite. **Gangue:** Quartz, fluorite, calcite. **Deposit:** 10-ft. ore body along contact of granite and metamorphics. Chiefly quartz in which sulfides are disseminated. **Dev:** A 440-ft. adit from which have been driven a 600-ft. crosscut, several short crosscuts, a drift, and 45-ft. winze. **Assays:** 4 assays show 2.7% to 9.6% Pb, 13 to 59 oz. Ag, 0.05 to 0.07 oz. Au. **Prod:** No large shipments of ore reported. **Ref:** 7, pp. 207, 208-209. 46, pp. 188-190. 105, 1/21/05, p. 46. 112, p. 198. 114, no. 5, 1909, pp. 74-75. 122, p. 99.

**Rattlesnake (13)**

(see under gold)

**Reedy**

(see Antimony Queen under antimony)

**Republic (82)**

(see also Peacock under silver)

**Loc:** NE¼ sec. 30, (35-25E), near summit of E. ridge of Peacock Mtn., Conconully dist. **Elev:** 4,050 ft. **Prop:** 1 claim of Peacock mine group. **Owner:** Peacock Mountain Mining & Milling Co. (1924). **Ore:** Lead, silver, copper. **Ore min:** Pyrite, galena, malchite. **Gangue:** Quartz. **Deposit:** Quartz vein 2 to 20 ft. wide in schist and sheared dike rocks near granite intrusive. **Dev:** Shaft. **Ref:** 58, p. 58. 75, pp. 29, 31. 98, 1925, p. 1827. 112, p. 197.

**Rich Bar (34)**

(see under copper)

**Ruby (31)**

(see under silver)

**St. Paul (130)**

(see under silver)

**Salmon River (70)**

(see under silver)

**San Francisco**

**Loc:** On Similkameen R., near Nighthawk. **Prop:** 3 claims. **Owner:** Frank Grogan (1897). **Ore:** Lead, gold. **Ore min:** Galena. **Dev:** 60-ft. adit. **Ref:** 63, p. 101.

**Security (40)**

(see under copper)

**Seven Devils**

(see Mineral Hill under silver)

**Sharp**

(see Silver King under copper)

**Sharp and Balthus (107)**

(see under zinc)

**Shelby**

(see under silver)

**Sheridan (98)**

(see under silver)

**Sherman (Standard) (87)**

**Loc:** SW¼SE¼ sec. 20 and sec. 29, (34-26E). **Elev:** 1,500 ft. **Access:** 3 mi. from railroad at Omak by unsurfaced road. **Prop:** 15 unpatented claims, including: Lizzie Bell, Standard, Brook. **Owner:** Sherman Mining Co., C. C. Sherman, Omak, and William Sherman, Tacoma, Wash. (1946-1952) leasing to Tele-site Mining Corp., Seattle, Wash. (1952). **Ore:** Lead, zinc, silver, gold. **Ore min:** Pyrite, arsenopyrite, galena, sphalerite. **Gangue:** Breccia, hydrothermally altered rock. **Deposit:** A 2-ft. breccia zone along the contact of granite and rhyolite is sparsely mineralized. **Dev:** 100-ft. inclined shaft, 40-ft. incline, 15-ft. open cut. **Assays:** 10 samples showed 0.01 to 0.08 oz. Au, nil to 17.9 oz. Ag, 0.1% to 3.6% Pb, 2.5% to 22.0% Zn. **Ref:** 157. 158.

**Silver Cliff (132)**

(see under silver)

**Silver King (9)**

(see under copper)

**Silver King (Bunker Hill, Hargrove) (71)**

**Loc:** SW¼ sec. 31, (36-25E). **Elev:** 2,700 ft. **Access:** 1 mi. N. of Conconully on Salmon Cr. road. **Prop:** 13 claims. **Owner:** Wm. Hargrove, Conconully, Wash. (1943). **Ore:** Lead, silver, zinc, copper. **Ore min:** Galena, sphalerite pyrite, scheelite, chalcopryrite, tetrahedrite. **Deposit:** Mineralized quartz veins up to 3 ft. wide in granite. **Dev:** 240-ft. adit, 100-ft. inclined shaft, 130-ft. drift, 2 other adits several hundred ft. in length, and several open cuts. **Prod:** Test shipment of lead-silver ore in 1918. **Ref:** 37, p. 43. 51, p. 10. 58, p. 11. 97, 1918, p. 506. 111, p. 5.

**Silver Mountain (53)**

(see under silver)

**Silver Point (124)**

(see under copper)

**Silver Seal**

(see Antimony Queen under antimony)

**Silver Star**

(see under silver)

**Silver Star**

(see Silver Mountain under silver)

**Six Eagles**

(see Little Chopaka)

**Snowshoe (108)**

(see also Castle Creek, Mountain Boy, Summit)

**Loc:** Sec. 12, (33-31E), on NW. slope of Old Glory Mtn. **Elev:** 4,225 ft. **Access:** 1½ mi. by road from Park City. **Prop:** 1 claim: Snowshoe, part of Mountain Boy group. **Owner:** Castle Creek Mining Co. (1918-1922). Colville Mining & Smelting Co. (1907). Tweedmont Mining & Milling Co. (1921). **Ore:** Lead, zinc, silver. **Ore min:** Galena, sphalerite, pyrite, limonite. **Deposit:** 2- to 3-ft. quartz vein along a granite-lime-stone contact. **Dev:** 180-ft. adit, discovery hole, abandoned adit. **Ref:** 7, p. 206. 46, pp. 183-185. 97, 1921, p. 427. 98, 1922, p. 1623; 1925, p. 1808. 122, pp. 93, 94. 129, p. 189.

**Sonny Boy (85)**

(see under silver)

**Spokane (American Rand) (44)**

(see under gold)

**Spokane (Gold Crown) (10)**

(see under gold)

**Standard**

(see Sherman)

**Star**

(see Lone Star)

**Submarine**

(see Lone Pine under silver)

**Summit (109)**

(see also Castle Creek, Mountain Boy, Snowshoe)

**Loc:** Sec. 11, (33-31E). **Elev:** 4,360 ft. **Access:** 1 mi. NE. of Park City by road. **Prop:** 1 claim: Summit, part of Mountain Boy group. **Owner:** Castle Creek Mining Co. (1918-1922). Colville Mining & Smelting Co. (1907). Tweedmont Mining & Milling Co. (1921). **Ore:** Lead, silver, copper, zinc, gold. **Ore min:** Galena, pyrite, chalcopryrite, sphalerite, tetrahedrite, malachite, azurite, anglesite. **Gangue:** Quartz, gouge. **Deposit:** Shear zone 18 in. wide in granite contains mineralized lenses of quartz along with much gouge. **Dev:** 350-ft. adit, 1,000-ft. adit, 100-ft. adit, 150-ft. adit, surface cuts. **Assays:** 50-ton shipment said to av. 30% Pb, 20 oz. Ag. Ore from stope in adit said to assay 0.06 to 0.12 oz. Au, 35 to 90 oz. Ag, 30% to 40% Pb. **Prod:** Reportedly 50 tons of galena. **Ref:** 7, pp. 205-206. 46, pp. 183-185. 97, 1907, p. 474; 1921, p. 427. 98, 1922, p. 1637; 1925, p. 1808. 114, no. 12, 1907, p. 16. 122, p. 94. 129, pp. 190-191.

**Summit (29)**

(see under silver)

**Sunshine**

(see Hidden Treasure under gold)

**Sunshine Chief**

(see Chief Sunshine under silver)

**Three L's (110)**

(see also Mountain Boy)

**Loc:** Near N. line sec. 12, (33-31E), Park City dist. **Prop:** Part of Mountain Boy group. **Ore:** Lead, silver. **Ore min:** Galena. **Gangue:** Quartz. **Deposit:** Open pits expose veinlets of quartz and galena in a 6-ft. shear zone in granite. Veinlets 1 in. to 2 in. wide. **Dev:** 200-ft. adit, open pits. **Ref:** 122, p. 96.

**Tip Top (131)**

(see under copper)

**Tomlinson**

(see under copper)

**Tonasket (56)**

(see under copper)

**Tough Nut (72)**

(see under silver)

**Triangle**

(see Hidden Treasure under gold)

**Trinidad**

(see Central under silver)

**Triune (45)**

(see under gold)

**Twisp View (11)**

(see under gold)

**Uncle Sam**

(see under silver)

**Viola**

**Loc:** Conconully dist. **Owner:** Viola Copper-Gold Mining Co. (1906-1908). **Ore:** Lead. **Ref:** 33, 1907, p. 1145; 1908, p. 1401. 98, 1918, p. 145. 105, no. 16, 1906, p. 469.

**War Eagle**

(see under silver)

**Wasco (100)**

(see under silver)

**Washington**

(see under silver)

**Washington Consolidated**

(see Mineral Hill under silver)

**West King**

(see under silver)

**Whitestone (97)**

(see under gold)

**Wolframite (1)**

(see under tungsten)

**Woo Loo Moo Loo (86)**

(see under silver)

**Wyoming (83)**

(see under copper)

**Yakima (94)**

(see under copper)

**PACIFIC COUNTY****Naselle (1)**

**Loc:** E½ sec. 2, (11-8W), under foundation of splash dam on E. Fk. Naselle R. **Ore:** Lead. **Deposit:** A 3- to 4-in. stringer of galena. **Ref:** 158.

**PEND OREILLE COUNTY****Ace Ten Spot (96)**

(see under zinc)

**D. Aldrich**

(see Lead King)

**Alger and McCullough (117)**

(see under copper)

**American Zinc, Lead and Smelting Co.**

(see under zinc)

**Auburn (26)**

**Loc:** Secs. 25 and 26, (40-43E), Metaline dist. **Access:** Highway crosses the property. **Prop:** 18 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Slight showings of lead and zinc largely covered by overburden. **Dev:** Open cuts, stripping. **Ref:** 29, p. 46.

**Bailey-Hanson**

(see Red Top)

**Baker City (114)**

(see under silver)

**Barefoot (110)**

(see under silver)

**Bead Lake (119)**

(see also Kootenai Conquest and Comstock)

**Loc:** NE¼ sec. 22, (32-45E), Newport dist. **Prop:** Several claims, including: Comstock, Conquest. **Owner:** Hoover Mining Co. (1930-1942). Conquest Consolidated Mining Co. (1907). Bead Lake Gold Copper Mining Co. (1908-1924). Bead Lake Mining Co. (1924-1926). **Ore:** Lead, copper, silver. **Ore min:** Galena, chalcopryrite, pyrrhotite, sphalerite, pyrite, arsenopyrite. **Gangue:** Quartz, barite, calcite, siderite. **Deposit:** Irregular veins in quartzite intruded by diorite. **Ref:** 33, 1908, p. 360. 73, pp. 41-44. 97, 1918, 1923, 1928, 1930, 1938. 98, 1922, 1925, 1926. 106, no. 9, 1920, pp. 6-7. 112, 1918, p. 167. 113, 7/1/37, p. 16. 129, pp. 75-79.

**Beaty (42)**

**Loc:** Secs. 26 and 27, (40-43E), Metaline dist. **Access:** Some distance from road. **Prop:** 6 unpatented claims, among them the Ethel, Evelyn, Ellen, Mary. **Owner:** B. T. Beaty, Metaline, Wash. (1941). **Ore:** Lead, zinc. **Deposit:** Replacement zone in silicified limestone is about 4 ft. wide. **Dev:** 100 ft. of adit and shafts, open cuts. **Ref:** 29, pp. 53-54.

**Bella May (99)**

(see under zinc)

**Berkin**

(see Wolf Creek)

**Blue Bucket (97)**

(see under zinc)

**Blue Jim (105)**

(see under silver)

**Bluebird**

(see Dumont under zinc)

**Bob Tail and Four Flush (90)**

(see under zinc)

**Boundary (20)**

**Loc:** Secs. 2 and 11, (40-43E), Metaline dist. **Access:** Road. **Prop:** 15 unpatented claims. **Owner:** J. D. Nelson and associates, Metaline Falls, Wash. (1941). **Ore:** Lead, zinc. **Deposit:** Slightly mineralized silicified limestone. **Dev:** Numerous cuts and trenches, mostly caved. **Ref:** 29, pp. 50-51.

**Bromide**

(see La Sota under silver)

**Bunker Hill**

(see Lead Hill under zinc)

**Buzzell**

(see Lucky Strike under zinc)

**Campbell (123)**

(see under copper)

**Caribou (1)**

**Loc:** Sec. 8, (40-43E), Metaline dist. **Access:** 3 mi. from road. **Prop:** 12 unpatented claims. **Owner:** Abandoned (1941). **Ore:** Lead, zinc. **Deposit:** Sparsely mineralized quartz stringers in a fracture zone. **Dev:** Open cuts, caved in 1941. **Ref:** 29, p. 53.

**Clark**

(see Josephine under zinc)

**Cliff (11)**

(see under zinc)

**Coffin (107)**

(see under zinc)

**Columbia Lead & Zinc Mining Co. (9)**

(see under zinc)

**Comstock (120)**

(see also Bead Lake)

**Loc:** N½NE¼ sec. 22, (32-45E), above and E. of the Fractional Key property. **Elev:** 3,000 ft. **Access:** 8½ mi. by road NW. of Newport. **Prop:** 1 claim: Comstock. **Owner:** Newport Mining & Leasing Co., Spokane, Wash. (1951). Bead Lake Gold Copper Mining Co. (1917-1924). Hoover Mining Co. (1937). **Ore:** Lead, silver, copper, zinc. **Ore min:** Galena, chalcopryrite, a little sphalerite. **Gangue:** Quartz, calcite, siderite, barite. **Deposit:** Zones in diorite near its contact with quartzite contain irregular mineralized quartz veins. Several zones are exposed by the workings. **Dev:** 325-ft. adit, 100-ft. adit, 530-ft.